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#46

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U.S. PATENT & TRADEMARK OFFICE  
WASHINGTON, DC 20231

On NOVEMBER 26, 2002

TOWNSEND and TOWNSEND and CREW LLP

By: Nancy Pizzo  
NANCY PIZZO

PATENT

Docket No.: 00287S-004820US  
Client Ref. No.: P-3026

**RECEIVED**

DEC 05 2002

OFFICE OF PETITIONS

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

PHILIP S. GREEN

Application No.: 08/709,930

Filed: September 9, 1996

For: SURGICAL SYSTEM

Examiner: GARLAND, STEVEN

Art Unit: 2786

**PETITION UNDER 37 C.F.R. §1.182  
FOR CLARIFICATION OF THE  
RECORD**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Applicant respectfully petitions under 37 C.F.R. §1.182 that the record for this case be clarified regarding the real party in interest.

SRI International, Inc. is the owner of the entire, right, title, and interest of U.S. Application No. 08/709,930, and is therefore "the real party in interest" for this application. An assignment as executed in parent U.S. Patent Application No. 07/823,932 is attached as Exhibit A, and this assignment was recorded in the U.S. Patent Office on January 21, 1992 at Reel/Frame 5595/0749. Additionally, pursuant to §8 of the *Standing Order* for Interference Nos. 104,643; 104,644; and 104,645 ("the Interferences"), a *Notice As To Real Party In Interest* was filed on December 13, 2000 to provide notice "that SRI International is the owner of the entire, right, title and interest of Application No. 08/709,930, . . ." the subject application which was involved in these three Interferences. Copies of each *Notice As To Real Party In Interest*

for the Interferences are attached as Exhibits B, C, and D. As indicated by Exhibits B, C, and D, Intuitive Surgical, Inc. is the exclusive licensee of the subject application.

Confusion regarding the real party in interest for this case may arise from incomplete statements on the matter during the Interferences. On March 30, 2002, a *Decision on Preliminary Motions and Order for Party Green to Show Cause* was entered in Patent Interference No. 104,643, involving the subject application ("the '643 Decision"). A copy of the '643 Decision is attached as Exhibit E. Paragraph 5 on page 3 of the '643 Decision states: "Green real party in interest is Intuitive Surgical, Inc." Similarly, the *Decision on Preliminary Motions and Judgment* entered for Patent Interference No. 104,644 of March 30, 2002 ("the '644 Decision") on page 3, paragraph 6, and the *Decision on Preliminary Motions* entered on March 30, 2002 for Patent Interference No. 104,645 ("the '645 Decision") in paragraph 6 on page 3 make the same statement. Copies of the '644 Decision and the '645 Decision are attached as Exhibits F and G, respectively. SRI International, Inc., the owner of the Application, was not mentioned.

Pursuant to 37 C.F.R. §1.182, Applicant respectfully petitions the Commissioner to clarify the record regarding "the real party in interest" of the present application. Specifically, Applicant requests that this Petition be entered and that the Decision granting this Petition state that it has been entered so as to clarify "the real party in interest" for the subject application.

For the reasons given above, SRI International, as owner of the entire right, title and interest in the subject application, is "the real party in interest" for Application 08/709,930. Intuitive Surgical, Inc., as exclusive licensee of the subject application, may be a real party in interest.

Authorization for Petition Fee

Applicants hereby authorize the Assistant Commissioner to charge our Deposit Account No. 20-1430 for the fee set forth under 37 C.F.R. §1.17(h) in the amount of \$130.00 for the petition fee. This Petition is being submitted in duplicate.

PHILIP S. GREEN  
Application No.: 08/709,930  
Page 3

PATENT



CONCLUSION

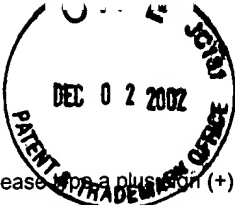
If a telephone conference would expedite granting of this Petition, please telephone the undersigned at (650 326-2400).

Respectfully submitted,

---

Mark D. Barrish  
Reg. No. 36,443

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, California 94111-3834  
Tel: (415) 576-0200 / Fax: (415) 576-0300  
MDB:nap  
PA 3266992 v1



Please affix a plus sign (+) inside this box → ☐

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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DACB

<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	<b>Application Number</b>	08/709,930	
	<b>Filing Date</b>	September 9, 1996	
	<b>First Named Inventor</b>	GREEN, PHILIP S.	
	<b>Group Art Unit</b>	2786	
	<b>Examiner Name</b>	GARLAND, STEVEN	
<b>Total Number of Pages in This Submission</b>		<b>Attorney Docket Number</b>	00287S-004820US

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application)  <input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input checked="" type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <ul style="list-style-type: none"><li>• EXHIBITS A-G</li><li>• Return Postcard</li></ul>
<b>Remarks</b>		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

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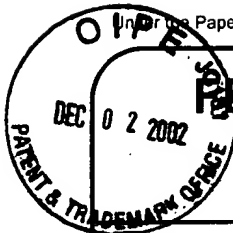
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm and Individual name	Townsend and Townsend and Crew LLP MARK D. BARRISH Reg. No. 36,443
Signature	
Date	26 NOVEMBER 2002

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this date:	
Typed or printed name	NANCY PIZZO
Signature	
Date	11/26/02

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# **FREE TRANSMITTAL** **for FY 2003**

Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$) 130

**Complete if Known**

Application Number 08/709,930  
 Filing Date September 9, 1996  
 First Named Inventor GREEN, PHILIP S.  
 Examiner Name GARLAND, STEVEN  
 Group Art Unit 2786  
 Attorney Docket No. 00287S-004820US

**METHOD OF PAYMENT (check all that apply)**

☐ Check ☐ Credit Card ☐ MoneyOrder ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
Number

20-1430

Deposit  
Account  
Name

Townsend and Townsend and Crew LLP

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
☒ Charge any additional fee(s) during the pendency of this application  
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

**FEE CALCULATION**

**1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	740	2001	370	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	510	2003	255	Plant filing fee	
1004	740	2004	370	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

**SUBTOTAL (1)**

(\$)

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims		Extra Claims		Fees from below		Fee Paid
	**					
Independent Claims						
Multiple Dependent						

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)**

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)**

**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	400	2252	200	Extension for reply within second month	
1253	920	2253	460	Extension for reply within third month	
1254	1,440	2254	720	Extension for reply within fourth month	
1255	1,960	2255	980	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,280	2453	640	Petition to revive - unintentional	
1501	1,280	2501	640	Utility issue fee (or reissue)	
1502	460	2502	230	Design issue fee	
1503	620	2503	310	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	130
1807	50	1807	50	Petitions related to provisional applications	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	740	2809	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	740	2810	370	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	740	2801	370	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid **SUBTOTAL (3)**

(\$) 130

**SUBMITTED BY**

**Complete (if applicable)**

Name (Print/Type) Mark D. Barrish Registration No. (Attorney/Agent) 36,443 Telephone 650-326-2400  
 Signature [Signature] Date 11/26/02

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OFFICE OF PETITIONS

SRI Docket No. US3026  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Philip S. Green

Serial No.: 07/823,932

Filed: January 21, 1992

Group No.: 2615

Examiner: Richard Lee

Hon. Commissioner of Patents & Trademarks  
Washington, DC 20231

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
(REVOCAION OF PRIOR POWERS)**

As assignee of record of the entire interest of the above-identified application,

**REVOCAION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given are hereby revoked, and

**NEW POWER OF ATTORNEY**

the following attorneys are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith:

Kenneth R. Allen, Reg. No. 27,106

Edward J. Keeling, Reg. No. 20,675

Stephen J. LeBlanc, Reg. No. 36,579.

**SEND CORRESPONDENCE TO:**

Kenneth R. Allen, Esq.  
Townsend & Townsend, Khourie & Crew  
379 Lytton Avenue  
Palo Alto, CA 94301-1431

**DIRECT TELEPHONE CALLS TO:**

Kenneth R. Allen  
(415) 326-2400

SRI INTERNATIONAL  
333 Ravenswood Ave.  
Menlo Park, CA 94025-3493

Assignment to SRI International was recorded in the PTO on 1/21/92 at Reel/Frame 5995/0749.

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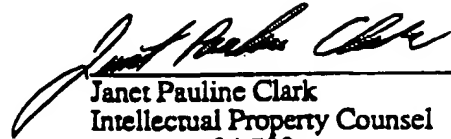
Page 1/2

EXHIBIT A

SRI Docket No. US3026  
PATENT

ASSIGNEE CERTIFICATION

Attached to this Power is a "CERTIFICATE UNDER 37 CFR 3.73(b).



Janet Pauline Clark  
Intellectual Property Counsel  
Reg. No. 34,799  
Telephone: (415) 859-2446  
Facsimile: (415) 859-3880

February 14, 1995

CERTIFICATE

I, Mary Lou Joyner, certify that I am Assistant Secretary of SRI International, that Janet Pauline Clark, who signed this Power of Attorney on behalf of SRI International is Intellectual Property Counsel of SRI International, and that said Power of Attorney was duly signed for and in behalf of SRI International by authority of its governing body and is within the scope of its corporate powers.

Dated: February 14, 1995

  
Mary Lou Joyner

(SEAL)

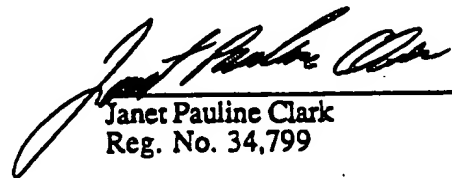
FEB 28 '95 13:37 SRI SCIENCE GROUP

P.4

SRI Docket No. US3026  
PATENT

CERTIFICATE UNDER 37 CFR 3.73(b)

The undersigned declares that she has reviewed the Assignment from inventor Philip S. Green to SRI International, as referenced in the foregoing Power of Attorney, and certifies that, to the best of her knowledge and belief, title is in the assignee as set forth therein.



Janet Pauline Clark  
Reg. No. 34,799

"Express Mail" Label No. EL624022523US

Attorney Docket No. 00287S-004821

Date of Deposit: December 13, 2000

Paper \_\_\_\_\_

Filed on behalf of Party: Philip S. Green

By: Edward J. Keeling  
Duane H. Mathiowetz  
Mark D. Barrish

TOWNSEND AND TOWNSEND AND CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, CA 94111-3834  
Phone: (415) 576-0200  
Fax: (415) 576-0300

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
(Administrative Patent Judge Sally C. Medley)

YULUN WANG and KEITH PHILLIP LABY,

Junior Party,  
(Patent 5,907,664),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

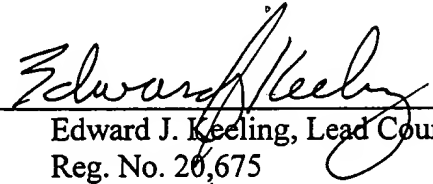
Patent Interference No. 104,643

NOTICE AS TO REAL PARTY IN INTEREST

EXHIBIT B

Notice is hereby given that SRI International is the owner of the entire right, title and interest of Application No. 08/709,930, the application involved in this interference. Intuitive Surgical, Inc. is the exclusive licensee of the application.

Respectfully submitted,

By   
Edward J. Keeling, Lead Counsel  
Reg. No. 26,675

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8th Floor  
San Francisco, California 94111-3834  
Telephone: (415) 576-0200  
Fax: (415) 576-0300  
Attorney Docket No. 00287S-004821

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of this document was served on this 13th day of December, 2000, by Federal Express to the attorneys of record for Party Wang et al. at the following addresses of record:

Blakely, Sokoloff, Taylor & Zafman  
12400 Wilsire Boulevard, 7th Floor  
Los Angeles, CA 90025

Kenneth L. Stein, Esq.  
Computer Motion  
130-B, Cremona Drive  
Goleta, CA 93117

  
Edward J. Keeling

"Express Mail" Label No. EL624022510US

Attorney Docket No. 00287S-004822

Date of Deposit: December 13, 2000

Paper \_\_\_\_\_

Filed on behalf of Party: Philip S. Green

By: Edward J. Keeling  
Duane H. Mathiowetz  
Mark D. Barrish

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San Francisco, CA 94111-3834  
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Fax: (415) 576-0300

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
(Administrative Patent Judge Sally C. Medley)

YULUN WANG, KEITH P. LABY, DARRIN R. UECKER,  
AMANTE A. MANGASER, and MODJTABA GHODOUSSI,

Junior Party,  
(Patent 5,878,193),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

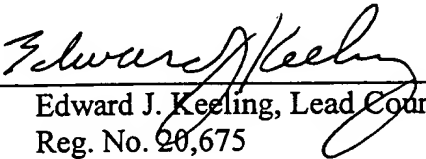
Patent Interference No. 104,644

NOTICE AS TO REAL PARTY IN INTEREST

EXHIBIT C

Notice is hereby given that SRI International is the owner of the entire right, title and interest of Application No. 08/709,930, the application involved in this interference. Intuitive Surgical, Inc. is the exclusive licensee of the application.

Respectfully submitted,

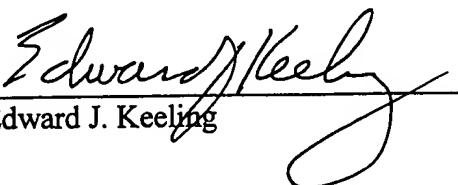
By   
Edward J. Keeling, Lead Counsel  
Reg. No. 20,675

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8th Floor  
San Francisco, California 94111-3834  
Telephone: (415) 576-0200  
Fax: (415) 576-0300

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of this document was served on this 13th day of December, 2000, by Federal Express to the attorney of record for Party Wang et al. at the following address of record:

Kenneth L. Stein, Esq.  
Computer Motion  
130-B, Cremona Drive  
Goleta, CA 93117  
(805) 685-3729

  
Edward J. Keeling



"Express Mail" Label No. EL624022506US

Attorney Docket No. 00287S-004823

Date of Deposit: December 13, 2000

Paper \_\_\_\_\_

Filed on behalf of Party: Philip S. Green

By: Edward J. Keeling  
Duane H. Mathiowetz  
Mark D. Barrish

TOWNSEND AND TOWNSEND AND CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, CA 94111-3834  
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Fax: (415) 576-0300

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
(Administrative Patent Judge Sally C. Medley)

YULUN WANG, DARRIN R. UECKER, CHARLES S. JORDAN,  
JAMES W. WRIGHT, KEITH PHILLIP LABY, and JEFF D. WILSON,

Junior Party,  
(Patent 5,855,583),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

Patent Interference No. 104,645

NOTICE AS TO REAL PARTY IN INTEREST

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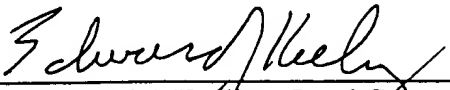
DEC 05 2002

OFFICE OF PETITIONS

EXHIBIT D

Notice is hereby given that SRI International is the owner of the entire right, title and interest of Application No. 08/709,930, the application involved in this interference. Intuitive Surgical, Inc. is the exclusive licensee of the application.

Respectfully submitted,

By   
Edward J. Keeling, Lead Counsel  
Reg. No. 20,675

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8th Floor  
San Francisco, California 94111-3834  
Telephone: (415) 576-0200  
Fax: (415) 576-0300

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of this document was served on this 13th day of December, 2000, by Federal Express to the attorney of record for Party Wang et al. at the following address of record:

Kenneth L. Stein, Esq.  
Computer Motion  
130-B, Cremona Drive  
Goleta, CA 93117  
(805) 685-3729

  
Edward J. Keeling

The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 76

Filed by: Trial Section Motions Panel  
Box Interference  
Washington, D.C. 20231  
Tel: 703-308-9797  
Fax: 703-305-0942

Filed  
30 March 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

YULUN WANG and KEITH PHILLIP LABY

Junior Party,  
(Patent 5,907,664),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

MAILED

MAR 30 2002

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

RECEIVED  
DEC 05 2002  
OFFICE OF PETITIONS

Patent Interference No. 104,643

Before SCHAFFER, LEE, and MEDLEY, Administrative Patent Judges.  
MEDLEY, Administrative Patent Judge.

DECISION ON PRELIMINARY MOTIONS  
AND ORDER FOR PARTY GREEN TO SHOW CAUSE

A. Introduction

This interference was declared on December 7, 2000. Wang has filed a preliminary motion 1 under 37 CFR § 1.633(a) for judgment against Green's sole involved claim 144 on the ground

EXHIBIT E

that the claim is unpatentable under 35 U.S.C. § 112, ¶ 1 (Paper 32). Wang has filed a preliminary motion 2 under 37 CFR § 1.633(c)(4) to designate its claims 1-3, 12 and 24 as not corresponding to the count (Paper 44).

Green has filed a preliminary motion 1 under 37 CFR § 1.633(c)(3) to designate Wang claim 8 as corresponding to the count (Paper 26). Green preliminary motion 2, filed under 37 CFR § 1.633(a), seeks judgment against Wang on the ground that Wang's involved claims 1-3, 11, 12, and 24 are unpatentable under 35 U.S.C. § 102/103 based on various pieces of prior art (Paper 27). Based on a similar theory, Green has filed a contingent preliminary motion 3 under 37 CFR § 1.633(a) for judgment against Wang claim 11 if the claim is designated as corresponding to the count. Green preliminary motion 4 is contingent upon the granting of Wang preliminary motion 1 and seeks to add Green claims 152-156 to the interference. Oral argument was held on 10 October 2001.

For the reasons that follow, Wang preliminary motion 1 is granted. Green preliminary motion 4 is denied. The remaining preliminary motions are dismissed.

#### **B. Findings of fact**

1. Wang is involved on the basis of Patent 5,907,664 ('664), granted 25 May 1999, based on application 08/613,866, filed 11 March 1996.

2. Green is involved on the basis of application 08/709,930, filed 9 September 1996.

3. Green has been accorded benefit for the purpose of priority of application 07/823,932, filed 21 January 1992.

4. Wang real party in interest is Computer Motion, Inc. (Paper 14).

5. Green real party in interest is Intuitive Surgical, Inc. (Paper 7).

6. The interfering subject matter pertains to a system that allows a surgeon to control a surgical instrument through a first input device.

7. A controller receives a signal generated from the input device which causes movement of the instrument.

8. Count 1, the sole count of the interference, is as follows:

Claim 144 of Green

or

Claim 11 of Wang

9. Claim 144 of Green is as follows:

A system for allowing a surgeon to control a surgical instrument that is inserted through an incision of a patient, wherein the incision defines a pivot point, comprising:

an articulate arm having an end effector for holding the surgical instrument, an active joint for moving said end effector, and an actuator for spinning the surgical instrument;

a first input device for receiving an input command from the surgeon; and

a controller for receiving said input command, for computing a movement of said articulate arm based on said input command, for providing an output command to actuate said active joint and said actuator, and for moving the surgical instrument about the pivot point.

10. Claim 11 of Wang is as follows:

A system a surgeon to control a surgical instrument that is inserted through an incision of a patient, wherein the incision defines a pivot point, comprising:

an articulate arm having an end effector for holding the surgical instrument, an active joint for moving said end effector, and an actuator for spinning the surgical instrument;

a first input device for receiving an input command from the surgeon; and

a controller for receiving said input command, for computing a movement of said articulate arm based on said input command, for providing an output command to actuate said active joint and said actuator, and for moving the surgical instrument about the pivot point.

C. Decision

Wang preliminary motion 1 - for lack of written description support and enablement

Green claim 144 recites a surgical instrument that is inserted through an incision of a patient, wherein the incision defines a pivot point. Wang argues that Green's specification fails to provide an enabling disclosure with respect to the pivot point. The '930 specification describes the pivot point in at least the following passages:

[Referring to Fig. 9] The inner section 112R1 is adapted for pivotal movement about intersecting perpendicular axes located substantially at point P where the insertion section intersects wall 106. (Green Ex. 1006, page 14, lines 15-18).

[Referring to Figs. 10 and 11] Additionally, it [forearm 174] is pivotally movable about point 176 in the directions of double-headed arrows 152M and 154M in response to pivotal movement of control arm 150L in the directions of double-headed arrows 152 and 154, respectively. For biomedical use, such as remote laparoscopic surgery, pivot point 176 is substantially located at the level of abdominal wall 178 through which the manipulator extends. In Fig. 11, manipulator arm 174 is shown extending through a cannula 180 which penetrates the abdominal wall. (Green Ex. 1006, page 17, line 34 through page 18, line 8).

[Referring to Fig. 11] Forearm pivotal control motors and linkages, identified generally by reference numeral 188, provide for pivotal movement of arm 174 about pivot point 176 in the directions of arrows 152M and 154M. Pivotal motion about point 176 is provided by simultaneous lateral movement of the outer operating end of the manipulator and pivotal movement of arm 174. Movements are coordinated such that the center of rotation of forearm 174 is fixed in space at point 176 at the level of the abdominal wall. (Green Ex. 1006, at 18, lines 17-26).

Wang argues that the specification fails to provide an enabling disclosure for a pivot point that is remote from the controller, e.g. 188 (Fig. 11) for the forearm 174 (Fig. 11) as follows:

[T]he '930 specification does not provide the structure, linkages, locations of the motors, attachment point for the outer end of the manipulator or mathematical formulas that would be necessary to create a pivot point remote from item 188 at point 176. As such the '930 specification is (sic) nonenabling. (Paper 32 at 10).

In support of its argument that '930 fails to provide an enabling disclosure, Wang argues that:

On May 14, 1993, after the original filing date of the '930 application by Green, another researcher at SRI International working on Green's team, Joel F. Jensen, filed an [sic] patent application entitled "Remote Center Positioning Device With Flexible Drive" naming Mr. Jensen as the sole inventor. (Wang Exh. 2022.) The Jensen patent discloses the type of complicated apparatus necessary to provide a pivot point remote from the bearings and mechanical supports for a surgical instrument. (Exh. 2002 [sic - 2022], Fig. 1.) No such device is described or enabled in the Green '930 specification. The fact that SRI filed a patent application on a remote center positioning device not only reflects a concession that such a device would not have been obvious to one skilled in the art at the time the Green '930 application was filed two years earlier, but makes clear that substantial experimentation would have been necessary to develop such a device. (Paper 32 at 10-11).

To satisfy the enablement requirement, a patent application must adequately disclose the claimed invention so as to enable a person skilled in the art to practice the invention at the time the application was filed without undue experimentation. Enzo Biochem, Inc. v. Calgene, Inc., 188 F.3d 1362, 1371-72, 52 USPQ2d 1129, 1136 (Fed. Cir. 1999). The issue is not whether any experimentation is necessary, but whether the amount of required



experimentation is undue. In re Vaeck, 947 F.2d 488, 495, 20 USPQ2d 1438, 1444 (Fed. Cir. 1991).

In essence, Wang argues that the filing of the Green '930 application two years earlier than the Jensen patent makes clear that substantial experimentation would have been necessary to develop such a complicated device (Paper 32 at 11). The Jensen patent does not necessarily demonstrate what one of ordinary skill in the art knew at the time of the invention. The Jensen patent was filed after the parent Green application. Furthermore, the Jensen patent demonstrates only one way to provide a pivot point remote from the bearings and mechanical supports for a surgical instrument. A conclusion does not necessarily follow, and Wang has failed to sufficiently demonstrate otherwise, that at the time of the invention there were not other ways to provide a pivot point remote from bearings and mechanical supports for a surgical instrument.

Even if Jensen describes the only way to provide a "remote pivot point", Wang has failed to sufficiently demonstrate that, at the time the Green application was filed, one of ordinary skill would be faced with undue experimentation to arrive at the claimed invention. Wang argues that "substantial experimentation" would have been required (Paper 32 at 11).

The test for enablement is whether the amount of required experimentation is undue, not substantial. A technique that is

routinely difficult (e.g. substantial) does not mean that the experimentation required is undue. Johns Hopkins Univ. v. CellPro, Inc., 152 F.3d 1342, 1360, 47 USPQ2d 1705, 1718 (Fed. Cir. 1998). The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine.

Wang further argues that the '930 specification does not provide an enabling disclosure for "an actuator for spinning the surgical instrument" as recited in Green claim 144 (Paper 32 at 11). Wang acknowledges that '930 describes a forearm 174 (Fig. 11) that rotates [in the direction of 158M], and that wrist 172 rotates in direction 166M. Wang argues that the '930 specification is nonenabling since, the specification does not describe where the motors for rotating forearm 174 and wrist 172 are located (Paper 32 at 12).

Wang directs us to no supporting evidence that demonstrates experimentation would be necessary to practice Green claim 144 with the spinning limitation, let alone that such experimentation would be undue. That the motors for spinning the forearm 174 and the wrist 172 are not shown, does not by itself demonstrate that one skilled in the art would not be able to practice the claimed invention.

Wang argues that '930 does not describe or enable the articulate arm limitation of the count (Paper 32 at 13). Wang

acknowledges that the articulate arm is shown in **Fig. 11**, for example as **188**. However, Wang argues that the articulate arm is not shown or enabled, since the motors and linkages for the arm are not shown or described (Paper 32 at 14). Again, Wang fails to direct us to evidence that demonstrates experimentation would be necessary to practice Green claim 144 with the articulate arm limitation, let alone that such experimentation would be undue. That the motors that operate the articulate arm are not shown, does not, without more demonstrate that one skilled in the art would not be able to practice the claimed invention.

Wang argues that '930 does not disclose an end effector for holding a surgical instrument (Paper 32 at 5). The end effector, as the term is used in the '930 specification, Wang argues, does not describe that the end effector hold a surgical instrument (Paper 32 at 5).

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of filing of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991); In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983). One shows that one is "in

possession" of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious.

Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997); In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976).

In deciding an issue raised in a motion filed under Rule 633(a), a claim will be construed in light of the specification of the application or patent in which it appears. 37 CFR § 1.633(a). In '930, the "end effector", in the context of a surgery system, is described as follows:

End effectors 114R and 114L are carried at the outer ends of the respective right and left sections 112R2 and 112L2 for manipulation of organ 116. ... End effectors 114R and 114L simply may comprise, essentially, microsurgical instruments with their handles removed including, for example, retractors, electrosurgical cutters and coagulators, microforceps, microneedle holders, dissecting scissors, blades, irrigators, and sutures. (Green Ex. 1006, at 14, lines 12-15, lines 21-26).

End effectors 270R and 270L are provided at the ends of the catheters which may comprise conventional endoscopic instruments. (Green Ex. 1006, at 20, lines 23-25).

Green's specification describes the end effector for manipulating objects located in a workspace. According to the '930 specification, in the context of a surgery system, the end effector comprises surgical instruments. The end effector, as described in the '930 specification, is not for holding a

surgical instrument, but rather is the surgical instrument itself. Thus, Wang's argument has merit.

In its opposition, Green argues that Wang has failed to establish a prima facie case of a lack of enablement (Paper 50 at 5). Green argues that:

Wang completely fails to consider what one of skill in the art would understand from reading the specification of the '930 application, and thus fails to address the "information known in the art" that one of skill would apply to the '930 specification. Focusing solely on the disclosure, as Wang now does, while ignoring whether the person of ordinary skill would be able to practice the Green invention without undue experimentation based on Green's disclosure coupled with the person's knowledge of the art, simply does not comport with the standard for a showing of nonenablement established by the Federal Circuit ... and is thus fatal to any attempted conclusion of nonenablement. (Paper 50 at 6).

And further:

Wang has presented no evidence that, or even discussed whether, one of skill in the art would not understand how to combine an end effector adapted to hold a surgical instrument with the invention recited in claim 144 of the '930 application. (Paper 50 at 7).

We understand Wang's argument to be based on a lack of written description support. Although, Wang's preliminary motion and subsections include the word "enablement" in their titles, Wang makes it clear, through the context of its arguments, that written description is at issue with respect to the "end effector" limitation. For example, Wang argues that "the '930 specification does not disclose an end effector for holding a

surgical instrument as required by the count" (Paper 32 at 5). Thus, Green's argument that Wang has failed to consider factors associated with enablement is misplaced.

The written description requirement is separate from the enablement requirement of 35 U.S.C. 112, ¶ 1. In re Wilder, 736 F.2d 1516, 1520, 222 USPQ 369, 372 (Fed. Cir. 1984); Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116-17 (Fed. Cir. 1991). An invention may be described, but found to be not enabled or vice versa.

Green argues that Taylor<sup>1</sup> discloses an end effector adapted to hold a surgical instrument and as such demonstrates that at the time of the invention the arrangement was known (Paper 50 at 8). As discussed above, Green's arguments with respect to enablement are misplaced. The issue is whether there is written description support for an end effector for holding a surgical instrument, e.g. whether Green was in possession of the claimed invention.

Green relies on the testimony of Salisbury to explain that in robotics, the working end of a tool (e.g. the end of a surgical instrument) is often referred to as an "end effector" as in '930, and that alternatively, it is also known in robotics to define some other convenient location along a kinematic chain of joints and links between the robot base and the end of a tool as

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<sup>1</sup> U.S. Patent 5,279,309.

an "end effector." Salisbury concludes that any convenient interface or joint along the kinematic chain may be designated the "end effector", so that '930 effectively provides an enabling disclosure of an articulate arm having an end effector for holding a surgical instrument (Paper 50 at 8, Green Ex. 1014, page 4, ¶ 8).

Dr. Salisbury's testimony is of little value because the meaning defined by Green in '930 is contrary to the alleged "common meaning." The term "end effector" is used in '930 to describe a surgical instrument and not the end of an instrument or tool, or an intermediate joint or link along a kinematic chain of joints and links.

Green has not used the term "end effector" according to its common meaning as pointed out by Dr. Salisbury. Nothing stemming from Green's specification indicates that Green was aware of the asserted broad meaning of "end effector" urged by Dr. Salisbury. Green used the term in a very narrow sense that is even outside of the broad scope of the meaning urged by Dr. Salisbury. The surgical instrument necessarily embodies its own end and thus cannot be a joint or link located between the robot base and an end of itself.

Note that expert testimony which contradicts the meaning of a term as is defined in the specification is entitled to little weight. Vitronics Corp. v. Conceptronic Inc., 90 F.3d 1576,

1585, 39 USPQ2d 1573, 1579 (Fed. Cir. 1996). An inventors' definition and explanation of a claim term, as evidenced by the specification, controls the interpretation of that claim term. Serrano v. Telular Corp., 111 F.3d 1578, 1582, 42 USPQ2d 1538, 1541 (Fed. Cir. 1997). Here, the '930 specification defines the term "end effector" to mean a surgical instrument, and as used, the end effector does not hold a surgical instrument<sup>2</sup>. The '930 specification does not describe the "end effector" as a part located along a kinematic chain of joints and links between the robot base and the end of a tool.

Furthermore, Salisbury fails to sufficiently set forth facts to support a conclusion that one of ordinary skill in the art at the time of the Green '930 invention, would know that the term "end effector" means any convenient location along a kinematic chain, or alternatively that "end effector" means the end of a working tool. Salisbury makes his assertions in the present tense as follows:

In robotics, the working end of the tool is often referred to as the "end effector" ... it is also known in robotics to define some other convenient location (often a joint) along the kinematic chain as the "end effector". (Green Ex. 1014, ¶ 8).

Green fails to direct us to where in Salisbury's testimony, Salisbury indicates what was known at the time the '930

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<sup>2</sup> During oral argument, counsel for Green acknowledged that the end effector as described in '930 is not used for holding a surgical instrument, but rather is described as the distal tip of a surgical instrument.



application was filed regarding the term "end effector". What is important is that which was known when the application was filed, not what was known when Salisbury testified.

For the reasons stated above, Wang preliminary motion 1 is granted. Green's sole claim 144 is unpatentable under 35 U.S.C. § 112, ¶ 1 for lack of written description support.

Green preliminary motion 4 - to add claims 152-156 to Green's application and to the interference,

Green preliminary motion 4 is contingent upon the granting of Wang preliminary motion 1. Wang preliminary motion 1 is granted. Thus, Green preliminary motion 4 is herein decided.

Green proposes to add claims 152-156 to its application. A party moving to add claims to its application and to designate those claims as corresponding to the count must show that the claims proposed to be added define the same patentable invention as the count. 37 CFR § 1.637(2)(ii). The definition of "same patentable invention" is set out in 37 CFR § 1.601(n) and is as follows:

Invention "A" is the same patentable invention as an invention "B" when invention "A" is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

Invention "A" is a separate patentable invention with respect to invention "B" when invention "A" is new (35 U.S.C. 102) and non-obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

The focus should be on the differences between the items

compared and not on general similarities. See Graham v. John Deere Co., 383 U.S. 1, 17 (1966). In proposed claims 152-156, Green has replaced the "end effector" limitation of Green claim 144 with "outer operating end." That is the only change made in proposed claim 152. Claims 153-156 additionally differ from Green claim 144 in the following ways. In proposed claim 153, the limitation "wherein the incision defines a pivot point" has been eliminated and the limitation "for moving the surgical instrument about the pivot point" has been changed to "for pivotally moving the surgical instrument about a point disposed at the incision."

Proposed claim 154 replaces "articulate arm" with "articulate linkage." Proposed claim 155 omits the limitation "wherein the incision defines a pivot point"; replaces "articulate arm" with "articulate linkage"; and the limitation "for moving the surgical instrument about the pivot point" has been changed to "for pivotally moving the surgical instrument about a point disposed at the incision." Proposed claim 156 omits the limitation "wherein the incision defines a pivot point"; replaces "articulate arm" with "articulate linkage"; the limitation "for moving the surgical instrument about the pivot point" has been changed to "for pivotally moving the surgical instrument about a point disposed at the incision"; and replaces "and an actuator for spinning the surgical instrument" with "and

a motor for rotating the surgical instrument."

Green argues that it has demonstrated, in its claim chart, that the claims proposed to be added define the same patentable invention as the count (Paper 36 at 4-10). Green's claim chart merely directs us to where in Green's specification Green has written description support for the limitations of its proposed claims. Green provides no substantive explanation as to why any one of the claims it proposes to designate as corresponding to the count define the same patentable invention as the count as required by Rule 637(2)(ii).

In its analysis, comparing its new claims 152-156 with the count, Green should be addressing the second alternative of the count, i.e. Wang claim 11, since the first alternative of the count is Green's claim 144 which is unpatentable to Green.

The meaning of the term "end effector" is in dispute. With respect to Wang preliminary motion 1, Wang proposes one definition, while Green proposes two separate definitions. The Green '930 specification defines "end effector" in yet another way.

In its motion to add claims and to designate those claims as corresponding to the count, Green is silent with respect to the count term "end effector" in the context of Wang's claim 11 and whether the difference between "outer operating end" in its new claims and the term "end effector" in Wang's claim 11 are such

that its new claims define the same patentable invention as the count.

The end effector, in Wang's specification, is described as being coupled to the robotic arm assembly (Green Ex. 1005, col. 1, lines 61-65). Wang further describes the "end effector" as an element that holds, or grasps the surgical instrument. For example, the end effector has a clamp 42 which can grasp and hold the endoscope 18 (Green Ex. 1005, col. 3, lines 46-50, Fig. 3). Alternatively, the end effector has a metal collar 124 that holds the endoscope 18 (Green Ex. 1005, col. 9, lines 34-36, Fig. 12), or a collar 148 that holds the instrument 142 (Green Ex. 1005, col. 9, lines 45-49, Fig. 13).

Green has replaced "end effector" with "outer operating end" (Green proposed claim 152). Green, in its claim chart, directs us to a portion of its specification where it has support for an "outer operating end" (Paper 36 at 5) which is as follows:

The outer operating end of the manipulator is adapted for attachment to a supporting rail, not shown, of the surgery table upon which the subject is supported. It includes an end effector drive motor 182 for opening and closing of gripper 170. Wrist drive motor 184 controls pivotal movement of wrist 172 in the direction of double-headed arrow 164M, and extension drive motor 186 controls axial movement of manipulator arm 174 in the direction of double-headed arrow 156M (Green Ex. 1006, page 18, lines 9-17, Fig. 11).

As described in the above passage, the outer operating end is at the opposite end of the surgical instrument 170. The outer

operating end is not an element that holds or grasps the surgical instrument. Rather, the outer operating end is adapted to attach to the operating table and comprises motors for manipulating the arm and surgical tool. Thus, the "outer operating end" is different from Wang's "end effector." Yet, Green has not provided an explanation as to why, given the count in the form of Wang's claim 11 as prior art, it would have been obvious to arrive at Green's new proposed claims reciting an "outer operating end" in place of the "end effector."

For this reason, it is also not apparent that there is even an interference-in-fact between any one of Green's proposed claims and any one of Wang's claims. As discussed above, Green's only claim 144 was found to be unpatentable. So in essence, Green is requesting, in its contingent preliminary motion, that we redeclare an interference between at least one Wang claim and at least one proposed Green claim.

The proper analysis in determining if an interference-in-fact exists between Green's proposed claims and Wang's claims is a two-way "same patentable invention" analysis. The claimed invention of Party A is presumed to be prior art vis-a-vis Party B and vice versa. Thus, it must be demonstrated that Green's claimed invention anticipates or renders obvious Wang's claimed invention and that Wang's claimed invention anticipates or renders obvious Green's claimed invention. See Winter v. Fujita,

53 USPQ2d 1234, 1243 (Bd. Pat. App. & Int. 1999). Green has not made an analysis in either direction with respect to a proposed new claim and any Wang claim.

Green proposes additional changes to its proposed claims 153-156. However, Green fails to sufficiently address the differences between the proposed claims 153-156 and the count. Green merely directs us to its claim chart, which in turn directs us to where in Green's specification Green has written description support for the claimed terms (Paper 36 at 6-10). It is the moving party's burden to demonstrate that it is entitled to the relief requested. With Green's showing, at most it can only be said that Green has written description support in its specification for its proposed new claims. Green has not persuaded us that its new claims interfere with Wang's claims or that its new claims define the same patentable invention as the count in the form of Wang's claim 11.

For the reasons stated above, Green preliminary motion 4 is denied.

Wang preliminary motion 2

Wang seeks to designate its claims 1-3, 12 and 24 as not corresponding to the count (Paper 43).

Because there will not be a priority phase in this interference, as will be explained below, it is not necessary to reach the issue of designating certain Wang claims as not

corresponding to the count.

Accordingly, the preliminary motion is dismissed.

Further Course of Proceeding and Dismissal of the remaining preliminary motions

Because party Green has been determined to have no written description in the specification of its involved application for its claim which was initially designated as corresponding to the count and has not shown that its proposed claims define the same patentable invention as the count, there is no occasion to proceed to a priority stage in this interference. Under the facts of this case, Green lacks standing to continue in the interference.

Because party Green does not have written description in the specification of its application for its claim corresponding to the count, the Director of the U.S. Patent and Trademark Office, through the board, is no longer of the opinion that Green's involved application interferes with Wang's involved patent. Indeed, in the opinion of the Director, through the board, as of this moment there is no conflict between the involved cases.

The declaration of an interference is entrusted by statute to the discretion of the Director of the U.S. Patent and Trademark Office upon consideration of the triggering factors of 35 U.S.C. § 135(a). In that regard, 35 U.S.C. § 135(a) states:

Whenever an application is made for a patent which, in the opinion of the Director, would interfere with any pending application, or with any unexpired patent, an interference may be declared and the Director shall give notice of such declaration to the applicants, or applicant and patentee, as the case may be. (Emphasis added.)

The Supreme Court has long ago affirmed the notion that whether an interference will be declared is determined solely upon the "opinion" of the Commissioner (now Director of the USPTO), and that if the Commissioner is not of such an opinion and if two patents have issued for the same invention, then the parties may resort to a civil action between themselves to address the conflict. See Ewing v. United States ex rel. The Fowler Car Co., 244 U.S. 1, 37 S.Ct. 494 (1917). In Ewing, the Court stated, 244 U.S. at 7-8, 37 S.Ct. at 496:

Section 4904, Rev. Stat. Comp. Stat. 1913, § 9449 provides: "Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with an unexpired patent, he shall give notice thereof to the applicants, or applicant and patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention. (Emphasis in original.)

In Ewing, supra, the Commissioner declined to declare an interference between two applications claiming the same invention. The Supreme Court expressed the view that even then the Commissioner (now Director) could not be compelled to declare an interference. The Court stated, 37 S.Ct. at 497:



[P]etitioner [the junior party applicant desiring the declaration of an interference] contends that "there is a fundamental and basic right of opposition on the part of any applicant, whether junior or senior, to prevent the wrongful grant of a patent to his opponent." . . . There indeed seems to be a less personal right claimed, -- the right of opposition in the interest of the public, displacing the superintendency of the Commissioner constituted by the law. It is to be remembered that the law gives the Commissioner both initial and final power. It is he who is to cause the examination of an asserted invention or discovery and to judge of its utility and importance; [footnote omitted] it is he who is to judge (be of opinion) whether an application will interfere with a pending one; [footnote omitted] and it is he who, after an interference is declared and proceedings had, is the final arbiter of its only controversy, priority of invention. [Footnote omitted]

The contentions of petitioner put these powers out of view, -- put out of view the fact that the so-called "judgment of record" is, as the action of the Commissioner may be said to be, but a matter of administration. A suit in equity may follow and be instituted by either party, and even in it nothing can be determined but priority of invention. . .

Such suit, therefore, is the judicial remedy the law provides. Section 4904 (Comp. Stat. 1913, § 9449) concerns and regulates the administration of the Patent Office, and the utility of the discretion conferred upon the Commissioner is demonstrated by his answer in this case.

The situation is similar today. Discretion is expressly conferred upon the Director of USPTO through 35 U.S.C. § 135(a). By implication, the termination of an already declared interference, prior to entry of final judgment, is also entrusted

to the discretion of the Director based on reconsideration of one or more of the same factors which were considered when declaring the interference. A position to the contrary would mean that Congress intended that the Director be forced to stay the course put in play by his own prior decision even when he has determined, upon reconsideration, that the prior decision is no longer valid. Absent a clear showing of congressional intent to that effect, we do not think that the patent statute mandates this patently incongruous result, especially when discretion has been fully entrusted to the Director of the USPTO.

We recognize that terminating the proceeding without reaching some issues which have been fully briefed by the parties may be viewed as wasting the efforts of the parties relating to those issues. However, the alternative does a level of harm and wrong to the administrative process established by Congress and the discretion conferred by statute upon the Director of the USPTO that outweighs any effort expended by a party in briefing an issue. Moreover, in this case, the parties are already involved in a patent infringement/validity suit in a U.S. District Court with respect to Wang's Patent No. 5,907,664, which suit has been stayed pending the outcome of this interference. Thus, any effort of party Green in preparing its preliminary motions for judgment on the ground of unpatentability would not appear to have been in vain; they can be used in defense of the

civil action.

Various decisions during prosecution of the interference may cause the question of continued prosecution of the interference to be considered by the Director, through the board, for example, a decision granting a preliminary motion alleging no interference-in-fact, a decision granting a preliminary motion alleging unpatentability based on late claiming under 35 U.S.C. § 135(b), and a decision on a preliminary motion for judgment on the ground that all claims of a party applicant which correspond to the count are unpatentable for lack of written description. If, upon such consideration, the Director exercises discretion to terminate the interference proceeding, that is the end of the proceeding. As for any issue briefed, but yet unresolved between the parties, the parties still have whatever forum and/or means previously available to them prior to the declaration of the interference to have those issues heard.

We are aware of Perkins v. Kwon, 886 F.2d 325, 328-29, 12 USPQ2d 1308, 1311 (Fed. Cir. 1989), which sets forth, in dicta, the principle that all issues which have been fairly raised and fully briefed, whether they relate to patentability or priority, should be decided. However, we regard as implicit that the principle applies only where the Director is still of the opinion that an interference exists between the involved cases of the parties, and that the claims of the parties, whether

patentable over the prior art, are described in that party's involved application or patent.

In other words, it is difficult to see how Green has standing to continue in this interference, and thereby challenge the patentability of claims in Wang's patent, when Green does not have the necessary "support" for its involved claim. Under these circumstances, we do not believe that Green should be allowed to convert an interference, in which it has no standing, to a post-grant cancellation yet to be authorized by Congress.

The Court of Appeals for the Federal Circuit has not ever held that the Director may not, during the course of an interference, revisit his or her own prior exercise of discretion in declaring the interference when circumstances or factors which were considered by the Director upon declaration of the interference have changed. The Court of Appeals for the Federal Circuit also has not ever held that in the absence of interfering subject matter for which both parties can make or present a claim, the board must nonetheless determine priority of invention or patentability over prior art. The issues here would appear to present a case of first impression for the Court of Appeals for the Federal Circuit.

We note, however, a decision of the Court of Customs and Patent Appeals in Nitz v. Ehrenreich, 537 F.2d 539, 190 USPQ 413 (CCPA 1976), which is much closer on the facts to this case than

is Perkins v. Kwon, supra. In Perkins, the board determined priority despite first finding that all of a parties' claims are unpatentable over prior art. In Nitz, 537 F.2d at 545, 190 USPQ at 418, the CCPA reversed a Commissioner's finding of interference-in-fact (merged with the board's decision) with respect to a count and vacated the board's determination on priority with respect to that count. The idea conveyed by the Nitz decision is that if the parties' claims do not interfere, there is no occasion to determine priority of invention. The CCPA vacated the board's priority determination even though undoubtedly the parties have spent efforts in presenting priority evidence and briefing priority issues. As was stated by the CCPA in Nitz, 537 F.2d at 543, 190 USPQ at 416:

The existence of common subject matter defined by the interference count is a prerequisite for an award of priority, i.e., the existence or nonexistence of interfering subject matter goes to the very foundation on which an interference rests.

If even priority determinations have been vacated by the CCPA when there was a determination of no interference-in-fact, the case is even more compelling that the board need not decide outstanding patentability issues, even those fully briefed by the parties, when the Director is no longer of the opinion that the involved cases interfere with each other or when it has been

determined that there is no interference-in-fact.<sup>3</sup>

Party Green's motion to designate Wang claim 8 to correspond to the count (preliminary motion 1), and its two motions for judgment, i.e., preliminary motions 2 and 3, against Wang's patent claims on the ground of unpatentability over prior art, are herein dismissed.

**D. Order to Show Cause**

It is

**ORDERED** that party Green shall show cause why judgment as to the unpatentability of Green's claim 144 should not be entered against Green and the interference terminated without adding Green's proposed new claims 152-156 and without reaching the merits of Green's preliminary motions 1, 2 and 3; and

**FURTHER ORDERED** that the only proper response to this show cause order, other than acquiescence to entry of judgment as to the involved claims and termination of the interference, is for Green to request final hearing and submit a brief for final hearing, no more than 35 pages in length;

**FURTHER ORDERED** that the brief for final hearing shall be written in the form and nature of a request for

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<sup>3</sup> In pertinent part, 35 U.S.C. § 135 states: "The Board of Patent Appeals and Interferences **shall** determine questions of priority of the inventions and **may** determine questions of patentability" (Emphasis added.) Even though the Federal Circuit in In re Gartside, 203 F.3d 1305, 1317, 53 USPQ2d 1769, 1777 (Fed. Cir. 2000), indicated that the term "may" in 35 U.S.C. § 135(a) should be understood as meaning "nearly mandatory," it can be no more mandatory than the term "shall" as applied in the same statutory section to determinations of priority.

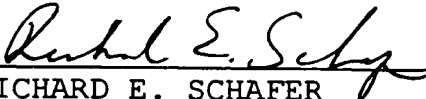
reconsideration of this decision and filed within 30 days of the date of this decision;

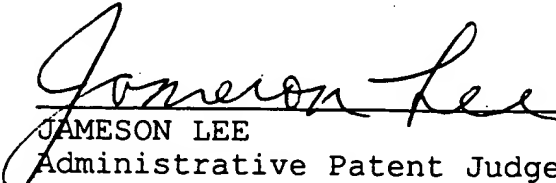
**FURTHER ORDERED** that counsel for party Green shall note that a request for reconsideration is not an opportunity to present new arguments or to re-argue points already made by a party and addressed by the board. Rather, it is an opportunity to point out arguments made by a party but overlooked by the board or to identify legal precedent which renders our analysis or conclusion erroneous;

**FURTHER ORDERED** that party Wang has 10 days from the date of filing of Green's brief for final hearing to file a responsive brief, limited to 20 pages and addressing only the points made in Green's brief for final hearing, and that party Green has 7 days from the date of filing of Wang's responsive brief to file a reply brief, limited to 7 pages and addressing only any new point raised in Wang's responsive brief that could not reasonably have been expected to be included in Green's initial brief;

**FURTHER ORDERED** that the brief for final hearing, the responsive brief, and the reply brief shall all be served by Federal Express; and

FURTHER ORDERED that if party Wang desires to seek final hearing for review of any aspect of our decision today, a joint telephone conference call shall be made to administrative patent judge Sally Medley in that regard within 14 days of the date of this communication.

  
RICHARD E. SCHAFER  
Administrative Patent Judge)

  
JAMESON LEE  
Administrative Patent Judge)

  
SALLY C. MEDLEY  
Administrative Patent Judge)

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES



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The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 81

Filed by: Trial Section Motions Panel  
Administrative Patent Judge  
Box Interference  
Washington, D.C. 20231  
Tel: 703-308-9797  
Fax: 703-305-0942

Filed  
May 28, 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

YULUN WANG and KEITH PHILLIP LABY

Junior Party,  
(Patent 5,907,664),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

Patent Interference No. 104,643

Before SCHAFER, LEE, and MEDLEY, Administrative Patent Judges.

MEDLEY, Administrative Patent Judge.

DECISION ON GREEN REQUEST FOR RECONSIDERATION  
AND FINAL JUDGMENT

**A. Introduction**

A decision on preliminary motions was entered on 30 March 2002 (Paper 76). Wang's preliminary motion 1 for judgment against Green was granted on the basis that Green's sole involved

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PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

claim 144 is unpatentable under 35 U.S.C. § 112, ¶ 1, for lack of written description support. Green's preliminary motion 4 to add claims to its application was denied. Since Green lacked standing to remain in the interference, the remaining preliminary motions were dismissed. Green was ordered to show cause why judgment should not be entered against Green, and that the response be in the form of a request for reconsideration (Paper 76 at 28).

On 30 April 2002 Green filed a request for reconsideration of the decision on preliminary motions (Paper 79). Although Wang was authorized to file an opposition to Green's request for reconsideration and Green was authorized to file a reply to any opposition filed by Green (Paper 76 at 29), parties Wang and Green were informed on 6 May 2002 that the parties need not file an opposition or reply."

For the reasons that follow, Green's request for reconsideration of our decision on preliminary motions is denied.

#### **B. Decision**

At the heart of Green's request for reconsideration is Green's assertion that (1) Wang only raised the issue of enablement and did not raise the issue of written description support with respect to Green's claimed "end effector" and (2) the board *sua sponte* decided, under 37 CFR § 1.641 (a), whether

Green had written description support for Green's claimed "end effector."

Green begins its brief by asserting that we did not consider our own binding precedent of LeVeen v. Edwards, 57 USPQ2d 1406 (BPAI 2000), which Green correctly notes it argued in its opposition to Wang's preliminary motion 1. Specifically, Green argues that Wang's preliminary motion 1 should have been dismissed for failing to set forth facts to support an argument that Green's claim 144 lacks written description support (Paper 79 at 5).

There were several procedural deficiencies noted in LeVeen. That the facts were not presented in numbered paragraphs in the beginning of the brief was only one of several noted deficiencies. For example, in LeVeen, the movant attempted to incorporate by reference "arguments" made by its declarants. Id. at 1414. The issues in LeVeen were ones of anticipation and obviousness, not of written description support. With respect to obviousness, Edwards had failed to provide a reason, motivation, suggestion, or teaching in the prior art as to why the subject matter of LeVeen's claims would have been obvious, and thus failed to make out a *prima facie* case of obviousness. Id. at 1414. Thus, Green is incorrect that Edwards' motion for judgment was dismissed because Edwards had failed to set forth sufficient facts on which relief could be granted (Paper 79 at 5). Not

setting forth sufficient facts was only one of the noted deficiencies.

While Wang, in its preliminary motion 1, did not set forth facts in its facts section to support an argument that the term "end effector" for holding a surgical instrument was not described in Green's specification, Wang did set forth facts in its argument section to support the relief requested. In its argument section of its preliminary motion, Wang clearly alleges that Green does not have written description support for an end effector for holding a surgical instrument. In the context of an argument that a term lacks written description support, the movant has the burden of demonstrating that it is entitled to the relief sought. In essence, the movant has the burden to prove a negative, that the substance of a term or phrase that is being claimed is not described in the specification. The facts necessary to support such an argument would be that the specification is lacking a description of what is being claimed. It may be enough then for the moving party to set forth facts in support of its argument that a claimed term or phrase is not supported by the written description, without necessarily culling through the entire specification to demonstrate that something is simply not there. Here, that is what Wang did. The mere fact that Wang put the facts in the wrong location of its preliminary motion is not sufficient grounds, in this case, for dismissal of

Wang's preliminary motion.

Green argues that we *sua sponte* considered whether Green had written description support for an end effector for holding a surgical instrument under 37 CFR § 1.641(a) (Paper 79 at 12-13). Green argues that Wang's argument, in Wang's preliminary motion 1, was clearly based on enablement and that Wang did not fairly raise the issue of written description support, such that Green was improperly denied a chance to respond.

As stated in our decision on preliminary motions, the issue of written description support was clearly before us (Paper 76 at 11, "We understand Wang's argument to be based on a lack of written description support ... Wang makes it clear, through the context of its argument, that written description is at issue with respect to the "end effector" limitation.").

We disagree with Green that the issue of written description support for an end effector for holding a surgical instrument was not fairly raised and presented by party Wang. We further disagree that Green did not have a chance to properly respond. Wang's argument is presented below:

**A. The '930 Specification Does Not Provide An Enabling Disclosure For An End Effector That Holds A Surgical Instrument Limitation Of The Count.**

2. Green has not identified an end effector that holds a surgical instrument. In the Fourth Supplemental Preliminary Amendment, Green stated that articulate arms 100, 142 hold surgical instruments 114, 170. There is no statement in the Amendment that the specification of the '930 has an end effector which holds the surgical instrument

as required by the count. The count recites an articulate arm having an end effector. The end effector holds a surgical instrument. Green has not identified an element that qualifies as an end effector of an articulate arm. (Wang Exh. 2002, p. 5, 1<sup>st</sup> para, right side).

3. The '930 application refers to item 170 as an end effector. (Green Exh. 1103, p. 17, ll. 15-17).

4. Green now states that item 170 is an instrument. Which one is it? The count requires that the instrument and end effector be two distinct elements. For how could the end effector hold itself. If item 170 is an instrument then where does the '930 application disclose an end effector? If item 170 is an end effector then the specification of the '930 application clearly does not show 170 holding a surgical instrument.

5. Given either interpretation of item 170 the '930 specification does not disclose an end effector for holding a surgical instrument as required by the count. (Paper 32 at 4-5).

While Wang does use the term "enablement" in the title of the subsection, it is clear that Wang is arguing that Green's specification lacks written description support for an end effector for holding a surgical instrument. Throughout its argument, Wang repeats that Green has not identified an end effector for holding a surgical instrument and that there is an inconsistency between explanations of the term provided by Green during prosecution of its involved application, with Green's annotation of claim terms in this proceeding, and with Green's specification.

Wang, in its preliminary motion 1, points out that Green has on occasion referred to the same item in Green's specification as

both the end effector and the surgical instrument. Wang argues that the claim recites two distinct items and that the one, e.g. the end effector, is for holding the surgical instrument. Wang concludes its argument by asserting that Green's specification does not disclose an end effector for holding a surgical instrument as required. While Green argues that no where in this section does Wang mention the phrase "written description" (Paper 79 at 19-20), also absent from Wang's arguments, with the exception of the subtitle, is the phrase "lacking enablement."

As correctly pointed out by Green, the issue of written description support and enablement are two distinct requirements under 35 U.S.C. § 112, ¶ 1. Wang's substantive argument regarding the end effector is based on written description support and not on enablement. While we recognize that Wang's subtitle may be misleading, to dismiss Wang's preliminary motion because Wang failed to use the proper heading would put form over substance. We do not think that such an outcome would lead to a just determination in this interference. See 37 CFR § 1.601. See also Pfluger v. Wertheim, 203 USPQ 874, 877 (Comm'r 1978) ("[P]apers will be treated on the basis of their content, rather than their title.")

Furthermore, party Green itself addresses Wang's arguments regarding lack of written description support. Specifically, Green argues in its opposition:



[A]s explained by Dr. Salisbury, the specification of Green's '665 patent (and thus the '930 application) often uses the term "end effector" to refer to the operative end of the surgical instrument used to manipulate tissues. (Green EXHIBIT 1014, page 4, paragraph 8; additional fact paragraph 3, *supra*.) As can be understood with reference to Fig. 9 of Green's '665 patent, robotic arms generally define a kinematic chain of joints and links between a base 110 of the robot and a working end of a robotic tool 114R. In robotics, the working end of the tool is often referred to as the "end effector" (as in Green's '665 patent). Alternatively, it is also known in robotics to define some other convenient location (often a joint) along the kinematic chain as the "end effector." (Green EXHIBIT 1014, page 4, paragraph 8; additional fact paragraph 3, *supra*.) This is merely a difference in nomenclature. Any convenient interface or joint along the kinematic chain may be designated the "end effector," so that the '665 patent, and thus the '930 application, effectively discloses an articulate arm having an end effector for holding a surgical instrument, (Green EXHIBIT 1014, page 4, paragraph 8; additional fact paragraph 3, *supra*.) (Emphasis added) (Paper 50 at 8).

The above-noted argument is responsive to Wang's argument regarding written description support for the end effector. We specifically addressed Green's argument presented above in our decision as follows:

Dr. Salisbury's testimony is of little value because the meaning defined by Green in '930 is contrary to the alleged "common meaning." The term "end effector" is used in '930 to describe a surgical instrument and not the end of an instrument or tool, or an intermediate joint or link along a kinematic chain of joints and links.

Green has not used the term "end effector" according to its common meaning as pointed out by Dr. Salisbury. Nothing stemming from Green's specification indicates that Green was aware of the asserted broad meaning of "end effector" urged by Dr. Salisbury. Green used the term in a very narrow sense that is even outside of the broad scope of the meaning urged by Dr. Salisbury. The surgical instrument necessarily embodies its own end and thus cannot be a joint or link located between the robot base and an end of itself.

Note, that expert testimony which contradicts the meaning of a term as is defined in the specification is entitled to little weight. Vitronics Corp. v. Conceptronic Inc., 90 F.3d 1576, 1585, 39 USPQ2d 1573, 1579 (Fed. Cir. 1996). An inventors' definition and explanation of a claim term, as evidenced by the specification, controls the interpretation of that claim term. Serrano v. Telular Corp., 111 F.3d 1578, 1582, 42 USPQ2d 1538, 1541 (Fed. Cir. 1997). Here, the '930 specification defines the term "end effector" to mean a surgical instrument, and as used, the end effector does not hold a surgical instrument. [FN omitted]. The '930 specification does not describe the "end effector" as a part located along a kinematic chain of joints and links between the robot base and the end of a tool.

Furthermore, Salisbury fails to sufficiently set forth facts to support a conclusion that one of ordinary skill in the art at the time of the Green '930 invention, would know that the term "end effector" means any convenient location along a kinematic chain, or alternatively that "end effector" means the end of a working tool. Salisbury makes his assertions in the present tense as follows:

In robotics, the working end of the tool is often referred to as the "end effector" ... it is also known in robotics to define some other convenient location (often a joint) along the kinematic chain as the "end effector". (Green Ex. 1014, ¶ 8).

Green fails to direct us to where in Salisbury's testimony, Salisbury indicates what was known at the time the '930 application was filed regarding the term "end effector". What is important is that which was known when the application was filed, not what was known when Salisbury testified. (Paper 76 at 13-15).

For the above reasons, we are not persuaded that (1) the issue of written description support for the end effector for holding a surgical instrument was not fairly raised and presented to Green, or that (2) we *sua sponte* considered the issue on our own. Wang raised the issue of written description support and Green responded.

Green next argues that we construed "end effector" too narrowly in light of Green's full disclosure (Paper 79 at 23). At the outset, Green argues that we improperly shifted roles by looking into Green's specification on our own without being directed to certain passages by Wang. As stated above, Wang has a negative burden of demonstrating that something isn't so. That Wang did. That we "on our own" verified the truth of the assertions does not mean that Wang failed to meet its burden.

Green argues that we failed to look at Green's entire specification in making our decision, since we ignored non-surgical embodiments when interpreting the term "end effector" (Paper 79 at 25). Green's entire disclosure was considered in rendering our decision. Green claim 144 recites "A system for allowing a surgeon to control a surgical instrument ... an articulate arm having an end effector for holding the surgical instrument..." The challenge mounted by Wang was that Green failed to provide written description support for an end effector for holding the surgical instrument. In this respect, Green's specification was reviewed for a description (including all drawings) that described an end effector for holding the surgical instrument. As we stated in our decision, in the context of surgery, e.g. using a surgical instrument, Green's specification describes the end effector as the surgical instrument. The end effector is not for holding the surgical instrument, but rather

is described as the surgical instrument itself. Thus, we did not ignore the other embodiments, but rather looked for where Green possibly has support for the claimed term of an end effector for holding the surgical instrument. The logical place to look is with respect to the embodiments that describe surgery and use of a surgical instrument. Even so, the entire specification (including the drawings) was reviewed for support for the claimed term.

Green argues that it is confused as to what the panel considers is the "common meaning" of the term end effector as discussed in our decision. The "common meaning" was provided by Green, through the Green's expert Dr. Salisbury, as clearly provided in our decision (Paper 76 at 13-15, "Green has not used the term "end effector" according to its common meaning as pointed out by Dr. Salisbury.").

Lastly, Green argues that it should have an opportunity to address the facts and legal issues presented to it for the first time in our decision (Paper 79 at 28-29). Green argues that it should have an opportunity to file new supporting evidence, and new preliminary motions. As stated above, Wang's preliminary motion 1 raised the issue of written description support with respect to the term of an end effector for holding a surgical instrument. Green responded, by providing evidence and arguments addressing why Green did have written description support for an

end effector for holding a surgical instrument. Accordingly, our decision did not raise a new issue. Green had the opportunity to respond when opposing Wang's preliminary motion. We simply resolved the issue raised in Wang's motion while giving full consideration to the points made and evidence submitted by both parties.

We note, that Green has already filed a responsive preliminary motion 4 in which Green proposed to change the term "end effector" for holding a surgical instrument to an "outer operating end" for holding a surgical instrument. That preliminary motion was denied (Paper 76 at 20).

Having considered Green's arguments in its request for reconsideration, we conclude that Green has failed to demonstrate that we misapprehended or overlooked any fact or argument first presented prior to the filing of the request for reconsideration.

The decision on preliminary motions (Paper 76) has been reconsidered to the extent necessary to provide the discussion here. No change in the decision will be made. Green's request for reconsideration is denied.

Since Green lacks standing to continue in this interference (Paper 76 at 21-28), judgment is entered against Green.

Upon consideration of the record, it is

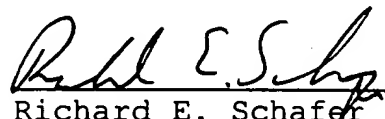
**ORDERED** that Green's request for reconsideration is denied.

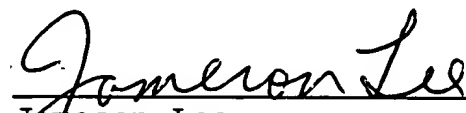
**FURTHER ORDERED** that judgment as to Count 1 (Paper 1 at 5), the sole count in the interference, is awarded against senior party Philip S. Green.


**FURTHER ORDERED** that senior party Philip S. Green is not entitled to a patent containing claim 144 (corresponding to Count 1) of application 08/709,930.

**FURTHER ORDERED** that a copy of this paper shall be made of record in files application 08/709,930 and U.S. Patent 5,907,664.

**FURTHER ORDERED** that if there is a settlement agreement, attention is directed to 35 U.S.C. § 135(c) and 37 CFR § 1.661.

  
Richard E. Schafer )  
Administrative Patent Judge)

  
Jameson Lee )  
Administrative Patent Judge)

  
Sally C. Medley )  
Administrative Patent Judge)

BOARD OF PATENT  
- APPEALS  
AND  
INTERFERENCES

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The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 82

Filed by: Trial Section Merits Panel  
Box Interference  
Washington, D.C. 20231  
Tel: 703-308-9797  
Fax: 703-305-0942

Filed  
May 28 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

YULUN WANG, KEITH P. LABY, DARRIN R. UECKER,  
AMANTE A. MANGASER, and MODJTABA GHODOUSSI

Junior Party,  
(Patent 5,878,193),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

Patent Interference No. 104,644

Before SCHAFER, LEE, and MEDLEY, Administrative Patent Judges.

MEDLEY, Administrative Patent Judge.

JUDGMENT

On 26 April 2002, an order granting a stay in this interference was granted (Paper 81). Judgment has been entered in related interferences 104,643 and 104,645. Accordingly, it is now time appropriate to lift the stay and enter judgment against Wang. Our decision on preliminary motions (Paper 80) is now

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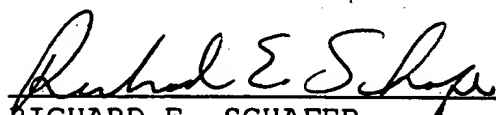
Accordingly, it is

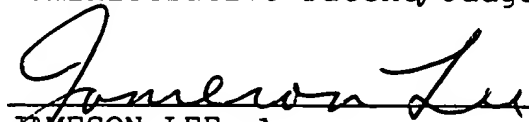
**ORDERED** that judgment as to Count 1 (Paper 1 at 5), the sole count in the interference, is awarded against junior party YULUN WANG, KEITH P. LABY, DARRIN R. UECKER, AMANTE A. MANGASER, and MODJTABA GHODOUSSI;

**FURTHER ORDERED** that junior party YULUN WANG, KEITH P. LABY, DARRIN R. UECKER, AMANTE A. MANGASER, and MODJTABA GHODOUSSI is not entitled to a patent containing claims 1-3 (corresponding to Count 1) of U.S. Patent 5,878,193;

**FURTHER ORDERED** that a copy of this paper shall be made of record in the files of application 08/709,930, and U.S. Patent 5,878,193;

**FURTHER ORDERED** that if there is a settlement agreement, attention is directed to 35 U.S.C. § 135(c) and 37 CFR § 1.661.

  
\_\_\_\_\_  
RICHARD E. SCHAFER  
Administrative Patent Judge

  
\_\_\_\_\_  
JAMESON LEE  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES

  
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SALLY C. MEDLEY  
Administrative Patent Judge

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The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 80

Filed by: Trial Section Merits Panel  
Box Interference  
Washington, D.C. 20231  
Tel: 703-308-9797  
Fax: 703-305-0942

Filed  
30 March 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

YULUN WANG, KEITH P. LABY, DARRIN R. UECKER,  
AMANTE A. MANGASER, and MODJTABA GHODOUSSI

Junior Party,  
(Patent 5,878,193),

**MAILED**

v.

MAR 30 2002

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Patent Interference No. 104,644

Before SCHAFER, LEE, and MEDLEY, Administrative Patent Judges.

MEDLEY, Administrative Patent Judge.

DECISION ON PRELIMINARY MOTIONS AND JUDGMENT

A. Introduction

This interference was declared on December 8, 2000. Wang has filed a preliminary motion 1 under Rule 633(a) for judgment against Green's sole involved claim 115 on the ground that the

EXHIBIT F

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claim is unpatentable under 35 U.S.C. § 135(b) (Paper 37). Wang has filed a preliminary motion 2 under 37 CFR § 1.633(a) for judgment against Green on the ground that Green claim 115 is unpatentable under 35 U.S.C. § 112, ¶ 1 (Paper 39).

Green preliminary motion 2<sup>1</sup>, filed under 37 CFR § 1.633(a), seeks judgment against Wang on the ground that Wang's involved claims 1-3 are unpatentable under 35 U.S.C. §§ 102/103 based on various pieces of prior art (Paper 33). Oral argument was held on 10 October 2001.

For the reasons that follow, Wang preliminary motions 1 and 2 are denied. Green preliminary motion 2 is granted.

**B. Findings of fact**

1. Wang is involved on the basis of Patent 5,878,193 ('93), granted 2 March 1999, based on application 08/732,015, filed 16 October 1996.

2. Wang has been accorded benefit for the purpose of priority of application 08/481,926, filed 6 June 1995, application 08/167,704, filed 15 December 1993, application 08/072,982, filed 3 June 1993, and application 07/927,801, filed 10 August 1992.

3. Green is involved on the basis of application 08/709,930, filed 9 September 1996.

---

<sup>1</sup> Green miscellaneous motion 1 to declare an interference between Wang's patent 5,815,640 and Green's involved application was denied (Paper 41).

4. Green has been accorded benefit for the purpose of priority of application 07/823,932, filed 21 January 1992.

5. Wang real party in interest is Computer Motion, Inc.  
(Paper 10).

6. Green real party in interest is Intuitive Surgical, Inc.  
(Paper 7).

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7. The interfering subject matter pertains to a method for allowing a user to remotely control movement of a surgical instrument.

8. Count 1, the sole count of the interference, is claim 1 of Wang.

9. Claim 1 of Wang is identical to Green claim 115 and is as follows:

A method for allowing a user to remotely control a movement of a surgical instrument having a tip, the method comprising the steps:

a) establishing an original position of the surgical instrument tip;

b) inputting a command provided by a user to move the surgical instrument in a desired direction relative to an object displayed on a display device;

c) computing an incremental movement of the surgical instrument based on the command provided by the user and on the original position of the surgical instrument;

d) moving the surgical instrument in the desired direction so that the surgical instrument tip always moves in a direction commanded by the user.

**C. Decision**

Wang preliminary motion 1 - Green claim 115 is barred under 35 U.S.C. § 135(b)

Wang argues that Green's sole involved claim 115 is unpatentable under 35 U.S.C. § 135(b) based on Wang U.S. Patent 5,524,180 ('180), issued 4 June 1996. Green claim 115 was added to Green's application on 28 May 1999.

---

Wang bears the burden to demonstrate that it is entitled to the relief sought. 37 CFR § 1.637(a). To meet that burden, Wang relies on an alleged admission made by party Green in its miscellaneous motion 1.

Green's miscellaneous motion 1 sought to add to the interference, or alternatively to declare an additional interference between Green's involved application and Wang U.S. Patent 5,815,640 ('640). Some of the '640 claims are nearly identical to some of the '180 claims. For example, '640 claim 8 is nearly identical to '180 claim 15.

In its miscellaneous motion, Green compared '640 claim 8 with the count to demonstrate that the claims were to the same patentable invention. Wang argues that:

In view of Green's admission that claim 8 of the '640 patent claims the same or substantially the same patentable subject matter as the count, an interference between Green's involved '930 application and claim 1 of Wang's '193 patent is barred under 35 U.S.C. § 135(b). (Paper 37 at 8).

And:

Given Green's claim interpretation that Wang claim 8 claims the same or substantially the same subject matter as the count (Wang '193 claim 1) an interference between Green claim 115 and the count is barred under 35 U.S.C. 135(b) since the Green amendment coping [sic] Wang '193 claim 1 did not take place within one year of the issuance of Wang's '180 patent. *In Re McGrew*, 120 F.3d 1236 (Fed. Cir. 1997). (Paper 37 at 9).

Wang appears to argue that because Green allegedly admitted that '640 claim 8 (which is nearly identical to a claim in the '180 patent) is the same or substantially the same as the count (which is identical to Green claim 115), and since Green made its claim 115 a year after the issuance of '180, then Green's claim 115 is barred under 35 U.S.C. § 135(b) in view of '180. We are not persuaded by Wang's argument for the following reasons.

Wang is the movant, and thus the burden is upon it to demonstrate that the '180 patent renders Green claim 115 unpatentable under 35 U.S.C. § 135(b). Section § 135(b) is as follows:

A claim which is the same as, or for the same or substantially the same subject matter as, a claim of an issued patent may not be made in any application unless such a claim is made prior to one year from the date on which the patent was granted.

Wang should have compared a claim from the '180 patent with Green claim 115 and set forth facts and arguments supported by evidence as to why Green claim 115 is a claim that is the same as, or for substantially the same subject matter as a claim in '180. This, Wang did not do. Instead, Wang merely

relies on an alleged admission made by Green in another motion to prove its case.

Wang argues that Green admitted that '640 claim 8 "claims the same or substantially the same subject matter" as the count (which is identical to Green claim 115) in Green's miscellaneous motion 1. Wang fails to direct us to where in Green's

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miscellaneous motion Green admits that '640 claim 8 "claims the same or substantially the same subject matter" as the count. In its motion, Green argues that '640 claim 8 is "not independently patentable" over the count (Paper 22 at 12). That Green did so is consistent with the relief sought. Green had the burden to establish that an interference-in-fact existed between a claim of the '640 patent and a Green claim involved in the interference, and thus, that a claim of Wang and a claim of Green define the same patentable invention. The test for "same patentable invention" under 37 CFR § 1.601(n) and "same or substantially the same subject matter" under 35 U.S.C. § 135(b) are not the same.

See In re Berger,

\_\_\_ F.3d \_\_\_, 61 USPQ2d 1523, 1527 (Fed. Cir. 2002). Thus, to the extent that Green admitted anything, it admitted that '180 claim 8 and the count (Wang claim 115) define the same patentable invention.

Green's "admittance" was made in the context of its argument to get the relief it sought. That Green made the argument does



not mean that the argument was accepted or persuasive. Indeed, Green's argument was found not to be persuasive. Green's miscellaneous motion 1 was denied. Thus, even if Green made such an admission as alleged by Wang, such admission does not establish the conclusion desired by Wang.

As explained in Berger, the test for "same patentable invention" under 37 CFR § 1.601(n) and "the same or substantially the same subject matter" test under 35 U.S.C. § 135(b) are not the same. Here, Wang has failed to sufficiently demonstrate that Green claim 115 is the same or substantially the same as a claim in '180. Indeed, Wang has made no comparison at all.

Green claim 115 is directed to a method for allowing a user to remotely control movement of a surgical instrument. Claim 8 of '640 (claim 15 of '180) is directed to a system for controlling movement of a surgical instrument that does not require remote control over the surgical instrument. Claim 8 of '640 (claim 15 of '180) recites a mechanism that moves the surgical instrument. The surgical instrument is coupled to a display device. These features are not recited in Green claim 115.

Wang has not accounted for the differences between Green claim 115 and any one claim of Wang '180, and indeed has made no comparison at all. Therefore, Wang has not demonstrated that the claims are to "substantially the same subject matter."

For the reasons stated above, Wang preliminary motion 1 is denied.

Wang preliminary motion 2

Wang preliminary motion 2 is for judgment against Green on the basis that Green's sole involved claim 115 is unpatentable under 35 U.S.C. § 112, ¶ 1. Wang argues that the Green specification fails to provide written description support for the limitation to "move the surgical instrument in a desired direction relative to an object displayed on a display device" (Paper 39 at 13).

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of filing of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language.

Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991); In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Green claim 115 is identical to Wang claim 1. Wang argues that Green's claim 115 be interpreted in light of Wang's specification, such that the limitation "move the surgical instrument in a desired direction relative to an object displayed

on a display device" means movement of the tip of an endoscope, or similar video imaging device in a direction relative to the image displayed on the display device (Paper 39 at 18-19). Wang would have us interpret Green's claim 115 to mean (1) that the surgical instrument is an endoscope or video imaging device, (2) that the endoscope or video imaging device is coupled to a display and (3) that when the "surgical instrument", e.g. the endoscope moves, it does so relative to the image displayed on the screen.

Wang relies on In re Spina, 975 F.2d 854, 856, 24 USPQ2d 1142, 1144 (Fed. Cir. 1992) for the proposition that a copied claim is interpreted in light of the patent from which it was copied. Wang is incorrect. Rule 633(a) expressly provides that:

In deciding an issue raised in a motion filed under this paragraph (a), a claim will be construed in light of the specification of the application or patent in which it appears.

Rule 633(a) is a procedural rule and governs this interference.

In Rowe v. Dror, 112 F.3d 473, 42 USPQ2d 1550 (Fed. Cir. 1997), the court distinguished Spina from Rule 633(a) and stated that:

[T]he PTO had good reason to promulgate a new rule in light of the new practice in which patentability of claims can be considered during the motion period of an interference. See 37 C.F.R. § 1.633(a) (effective date February 11, 1985). Earlier case law did not deal with such a situation. Moreover, Spina did not involve a Rule 633(a) motion. Thus, the PTO was writing on a clean slate, not flouting judicial precedent.

Rowe, 112 F.3d at 479 n.2, 42 USPQ2d at 1554 n.2. See also, Cultor Corp. v. A.E. Staley Manufacturing Co., 224 F.3d 1328, 1332, 56 USPQ2d 1208, 1211 (Fed. Cir. 2000) (Copied claims construed in light of specification of which they are a part). Thus, we decline to interpret Green's claim 115 in light of Wang's specification such as to add limitations to the claim language. Green's claim 115, to the extent necessary, is to be construed in light of Green's specification.

The limitation to "move the surgical instrument in a desired direction relative to an object displayed on a display device" appears simple to understand. The claim does not require adding limitations into the claim as Wang suggests. The limitation is interpreted such that when viewing on the display, the operator may verify that when he sends commands to move the surgical instrument in a desired direction that the instrument actually moves in that direction relative to an object displayed. Green's involved specification provides written description support for this interpretation.

Green's specification describes, with respect to the "surgical" embodiments shown in Figs. 7-9, that the elements of the imaging system "are substantially the same as those employed in the imaging system illustrated in Figs. 1-3 ... except that an enlarged virtual image ... is provided for viewing by the operator." (Green Ex. 1003 at 13, lines 5-10). Green's

specification describes, with respect to Figs. 1-3, that:

[t]he worksite is provided with [a] pair of video cameras 46R and 46L for viewing workspace 30 from different angles for production of stereoscopic signal outputs ... (Green Ex. 1003 at 6, lines 28-31).

The video camera outputs at lines 48R and 48L are supplied to an image memory 50 for momentary storage of video fields of right and left images from the cameras. Fields of right and left images from image memory 50 are alternately supplied through left/right switch means 52 to visual display means 54, such as a television monitor, for alternate display of the two images at the face 54A of the monitor. (Green Ex. 1003 at 7, lines 5-12).

[An] inverted workspace image 30I is viewed by the operator via a mirror 66 at the top of a table 68, which mirror inverts image 30I to return the image as viewed by the operator to an upright position. Looking downwardly in the direction of the mirror, the operator views a virtual image 30V of workspace 30. In accordance with one aspect of the present invention, the image viewed by the operator, which in the Fig. 1-3 embodiment comprises a virtual image, is located adjacent controller means 70 used by the operator for control of manipulator means 24 at the worksite. (Green Ex. 1003 at 8, lines 10-21).

With respect to Figs. 7-9, the specification further states that:

Video camera means at the worksite, such as shown in Fig. 9, together with display means, such as shown in Fig. 7, are employed for providing the operator with an image of the workspace at a location adjacent the left and right hand-operated control means. (Green Ex. 1003 at 18-19, lines 33-2).

A further embodiment with respect to Figs. 12 and 13 describes that:

End effector and object images 248 and 250, respectively, are shown within the workspace image as viewed by video cameras at the worksite. The display means 246 is located adjacent the left and right hand-operated means 244R and 244L for direct viewing by the operator. With this

arrangement, the end effector and object images together with the hand-operated means 244R and 244L are simultaneously viewable by the operator. Since the hand-operated means also are visible, the operator is provided with a visual sense of connection between the end effector means and hand-operated means whereby they appear substantially as being integral. (Green Ex. 1003, at 19-20 lines 25-2).

Green's specification describes a video display at the operator's station for viewing the surgical instrument at the work site. The operator inputs commands at the operator's station that acts to manipulate objects at the work site. The display provides a visual of the object that the operator is manipulating at the work site. When the operator moves its controls, e.g. the manipulator at the operator's station in a desired direction, the surgical instrument likewise moves in a desired direction. The operator may verify this action visually on the display device. When the operator inputs a command "to move the surgical instrument in a desired direction" the surgical instrument will move in the desired direction and relative to the object displayed on the display device. Thus, the display, can be fixed and meet the claimed limitation, since the instrument will always move in the desired direction relative to the object displayed on the display device.

Wang argues that even if Green's claim 115 is to be interpreted such that the term "surgical instrument" is not limited to an endoscope or other video imaging device, Green

still does not have written description support for its claim 115 (Paper 29 at 23).

Wang directs us to Green's laparoscope 108 shown in Fig. 9 which contains an outer end section 120 that can rotate within inner end 122. Wang argues that when the outer end section 120 is rotated, the image device within the laparoscope will also rotate, so that a rotation of 180 degrees will likewise rotate the image 180 degrees. When this happens, Wang argues, the image displayed on the display device is out of alignment and the surgical instruments will not move relative to the image displayed on the display device. Instead, when the laparoscope is rotated 180 degrees, the instrument will appear to move in the opposite desired direction displayed on the display device.

Wang's argument is not persuasive. Wang makes the assumption, without directing us to supporting evidence, that an operator of the Green system would want to rotate the laparoscope during the surgical procedure. Green's disclosure, with respect to Fig. 9 describes the following:

Laparoscope 108 for viewing the workspace 104 is shown comprising an outer operating section 108A and insertion section 108B. The outer end section 120 of insertion section 108B is axially and rotatably movable within the inner end 122 thereof, and is provided with a pair of image transmission windows 124, 124 for stereoscopic viewing of workspace 104. (Green 1003, page 14, lines 27-33).

Video camera means within section 108A are responsive to light received through the viewing windows for generation of left and right electronic images at output lines 48R and 48L for connection to image memory 50. A magnified 3-

dimensional image 104I is produced at display means 54 for viewing by the operator wearing cross-polarized glasses 60 via mirror 66. As with the embodiment shown in Figs. 1-3, a virtual image 104V of the workspace 104 is produced adjacent control arms 130R and 130L of controllers 102R and 102L. (Green Ex. 1003, page 15, lines 2-11).

Angular pivotal motion of the control arms 130R and 130L produces the same angular pivotal motion of insertion sections 100RB and 100LB, and rotational movement of the end sections 132R2 and 132L2 of the control arms produces the same rotational motion of end sections 112R2 and 112L2 of the insertion sections of the right and left manipulators ... (Green Ex. 1003, page 16, lines 6-12).

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From the above, there is no discussion of rotating or manipulating the laparoscope 108. The description describes providing an image of the workspace as in Figs. 1-3. In Figs. 1-3, the cameras are fixed above the workspace and not manipulated or rotated during surgery. Still further, the above description describes moving the manipulators 100LB and 100RB located at the work site by moving the control arms 130R and 130L at the operator's station. This includes rotating the ends of the manipulators to manipulate the organ or tissue of the patient. Note, absent from the figures or description is a control arm at the operators station that is used for manipulating the laparoscope during surgery. There is no discussion of manipulating the laparoscope during the surgery, and one would not infer as much from the description. Green only describes and discloses manipulating arms 100RB and 100LB during the procedure - not arm 108B. Wang has failed to direct us to where in Green's



specification there is a suggestion or teaching that the laparoscope 108 is rotated or manipulated during surgery.

For the above reasons, Wang preliminary motion 2 is denied.

Green preliminary motion 2 - Wang claims 1-3 unpatentable in view of prior art

Green argues that Wang's claim 1 is anticipated by Green's U.S. Patent 5,808,665 ('665) (Paper 33 at 12). Each of Wang's claims 2 and 3 depends on Wang claim 1. Green argues that Wang claims 2 and 3 are obvious over '665 in view of U.S. patent 5,078,140 (Kwoh).

Wang claim 1 is as follows:

A method for allowing a user to remotely control a movement of a surgical instrument having a tip, the method comprising the steps:

- a) establishing an original position of the surgical instrument tip;
- b) inputting a command provided by a user to move the surgical instrument in a desired direction relative to an object displayed on a display device;
- c) computing an incremental movement of the surgical instrument based on the command provided by the user and on the original position of the surgical instrument;
- d) moving the surgical instrument in the desired direction so that the surgical instrument tip always moves in a direction commanded by the user.

Green argues that each and every element of Wang claim 1 is described in the '655 reference, either expressly or inherently. Green directs us to figures and passages in the '665 reference

that describe the claimed features. In addition, and in compliance with paragraph 26(d) of the Standing Order, Green includes an Appendix A of Wang claim 1 with citations to the '665 reference for the claimed elements.

Green acknowledges that its '665 disclosure does not explicitly describe "computing an incremental movement of the surgical instrument based on the command provided by the user and on the original position of the surgical instrument." Instead, Green takes the position that the feature is inherent.

A claim is anticipated only when a single prior art reference discloses each and every limitation of the claim. The disclosure need not be express, but may anticipate by inherency where it would be appreciated by one of ordinary skill in the art. Glaxo, Inc. v. Novopharm, Ltd., 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir. 1995).

Green directs us to where in the '665 disclosure is described that the operator's movements of the control arms at the operator station controls the position of the manipulator arms and end effectors via a "servomechanism system." According to Green, the '665 further describes that servomechanisms are well known and that any suitable prior art servomechanism may be used.

Green argues, supported by the declaration of Dr. Salisbury, that servomechanisms used to control the position of a robotic

arm necessarily take into account the original position of the robotic arm. This is done by determining the position of the arm before movement through the use of position sensors such as optical or electromagnetic position encoders. Green points out, that the '665 patent describes that the control means and manipulators may be employed using a wide variety of well-known mechanisms, including optical or electromagnetic position encoders. (Green Ex. 1015, col. 11, lines 22-27).

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Dr. Salisbury states that servomechanism systems are necessarily closed-loop control systems that use position sensors to determine the difference between the sensed (original) position of the arm and the commanded positions of a robotic arm to move the arm. Salisbury directs us to Katsuhiko Ogata, "Modern Control Engineering" (Green Ex. 1044) to support his assertions. In its declaration, Salisbury explains the passages in the Ogata reference as demonstrating how a servomechanism system would work for the robotic system shown in Green '665. Salisbury concludes that Ogata establishes that the '665 patent necessarily and inherently discloses a closed-loop servomechanism control system that relies on information from position sensors to sense the actual position of the robotic arm, and that moves the arm towards the commanded location based on the computed difference between the input command of the operator on the control handles and the arm's sensed position.

Green also directs us to the passages in the Wang patent that describe similar action with respect to the robotic arm. Specifically, Wang describes:

[That] [t]he actuators 24, 30, 34 and 38 may each have position sensors 46-52 that are connected to the computer 20. The sensors may be potentiometers that can sense the rotational movement of the electric motors and provide feedback signals to the computer 20 (Green Ex. 1002, col. 4, lines 34-38).

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And that the sensors are relied on to determine the movement of the arm to the desired position as follows:

To move the end effector to a new location of the x-y plane[,] the processor 78 computes the change in angles  $a_2$ ,  $a_3$  and  $a_4$ , and then provides output signals to move the actuators accordingly. The original angular position of the end effector is provided to the processor 78 by the sensors 46-55. The processor moves the linkage arms an angle that corresponds to the difference between the new location and the original location of the end effector (Green Ex. 1002, col. 5, line 65 - col. 6, line 5).

Thus, as explained from the above, the position sensors located at the different locations, e.g. joints along the robotic arm are used to determine the difference between the new location and the original position to move the arm, and thus instrument, to the desired location. This is similar to the explanation provided by Salisbury with respect to how "servomechanism systems" work.

Wang, in its opposition does not dispute that servomechanisms are closed-loop systems that rely on position encoders to determine the position of the robotic arm, rather Wang argues that not all servomechanisms using position encoders

necessarily move a robotic arm based on the original position of the arm, but based on the relevant position of the robotic arm.

Wang's position is supported by the declarations of Drs. Wang and Hackwood. Neither Wang nor Hackwood dispute the declaration of Dr. Salisbury and the teaching of Ogata, demonstrating that a "servomechanism system" using "position encoders" (described in the '665 patent) is a closed-loop feedback system that allows for error correction - the error determined by the difference between an original position and the desired position.

Hackwood and Wang appear to take the position that servomechanism systems can use different types of position sensors - absolute joint position sensors needed to determine absolute joint-angle information and relative position sensors that determine the relative position between the master and slave joint(s). Hackwood and Wang state that Wang '193 discloses how to accurately determine the original position of the surgical instrument by using absolute joint-angle information with reference to a world coordinate frame.

Hackwood and Wang suggest that Green's '665 system is based on one in which the kinematic structure of the master controller is identical to the kinematic structure of the slave manipulator. According to them, in such a system, it is not necessary to know the absolute position of each joint. Rather the system can utilize the relative position between each master controller

joint and the corresponding slave manipulator joint. In such a system each slave joint is positioned relative to the corresponding master controller joint (Wang Ex. 2023, ¶¶ 6-8, Wang Ex. 2032, ¶¶ 11-13).

There are difficulties with the declarations of Wang and Hackwood. Neither explain what "absolute joint-angle" information means. Wang's '193 specification does not describe determining the "absolute joint-angle" information with reference to a "world coordinate system" to determine the original position of the instrument. Rather, Wang describes position sensors at the various joints along the robotic arm. The sensors relay information back to the computer that then determines the angles between each link to determine the original position of the arm, and thus the surgical instrument. This is similar to the concept of a servomechanism system as described by Salisbury, and as further explained in the Ogata reference.

Note, that Wang's involved patent does not describe sensors located at the tip of the instrument or anywhere on the instrument itself. Rather the position of the instrument apparently is determined by sensing the position of the robotic arm. Wang and Hackwood conclude that in order to determine the "absolute joint-angle" information in reference to a "world-coordinate system" that one must use "absolute joint position sensors." The term "absolute joint position sensors" is not explained. Wang's own disclosure does not refer to the position

sensors as "absolute joint position sensors." We do not know what the term means.

Wang and Hackwood suggest that Green '665 describes a servomechanism system that uses "relative position encoders" that determine the relative position between the master and slave joints and not the original position. This is so, they suggest, since the master and slave kinematic structures shown in '665 are identical. It is enough then, they suggest, to just know the relative position between the master and slave joints to move the slave arm to a desired position. Neither explain what calculations, or determinations are made when one determines a "relative position." Even if the desired movement is accomplished by taking the difference between the desired location and the relative position, there is some starting point, e.g. the relative position. In other words, the computer has to tell the slave to move to the desired location by knowing some "original position", even if such position is relative to the master. Neither Wang nor Hackwood explain how the servomechanism system determines to move the slave arm when the "relative position" is established.

Still further, Hackwood and Wang make the assumption that '665 would only support a servomechanism system that uses relative position encoders, because the kinematic structure of the master and the kinematic structure of the slave are the same. However, there is at least one embodiment that shows a kinematic

structure of the slave that is apparently different from the kinematic structure of the master. Green '665 Fig. 14 show two "steerable catheters" 268L and 269R. The embodiment is described as follows:

Steerable catheters which include control wires for controlling bending of the catheters and operation of an end effector suitable for use with this invention are well known. Control motors for operation of the control wires are provided at the operating end of the endoscope, which motors are included in a servomechanism of a type described above for operation of the steerable catheters and associated end effectors from a remote operator's station. As with the other embodiments, the interfacing computer in the servomechanism system remaps the operator's hand motion into the coordinate system of the end effectors... (Green Ex. 1015, col. 10, lines 54-64).

Wang is silent with respect to this embodiment. Here, it appears that the operator's controls are different from the manipulators, such that, according to the definitions provided by Wang and Hackwood, relative sensors would not work with such a system, rather one would use "absolute joint" encoders as such encoders are explained by Wang and Hackwood.

Wang argues that the Green '665 patent does not describe (1) the location of every motor used in the servomechanism system; (2) the location of the position encoders; or (3) which motors utilize position encoders. Wang concludes that without such description '665 does not disclose a servo system capable of determining the original position of the surgical instrument's tip. Wang's claim 1 does not recite specific locations of the encoders or motors. Further, Wang does not rebut Green's



assertions, through the declaration of Salisbury, that a servomechanism system using position encoders, as described in '665, necessarily uses encoders associated with motors or joints along the robotic arm to sense the original position. (Green Ex. 1043, ¶ 7).

Wang also argues that the examiner's rejection of Green claim 115 (which is identical to Wang claim 1), during ex parte prosecution, as lacking support for computing incremental movement of the surgical instrument based on the original position of the surgical instrument was correct. Apparently, Wang is arguing that since the disclosure of the '665 patent is identical to the disclosure of Green's involved application, then the '665 patent does not describe Wang claim 1 for the same reasons given by the examiner.

The examiner's rejection was overcome. The examiner indicated that Wang claim 115 was allowed (Green Ex. 1009 at 8). Furthermore, we are not bound by decisions made by an examiner during ex parte prosecution. During an interference, independent review of issues are made. See Glaxo Wellcome, Inc. v. Cabilly, 56 USPQ2d 1983, 1984 (BPAI (ITS)). (Neither the Board nor a party are bound by an ex parte decision made during prosecution by another party. A motion in an interference is not an appeal from the examiner's decision, but an independent request to the Board).

The next claimed feature that the parties disagree is described in Green '665 is to "move the surgical instrument in a desired direction relative to an object displayed on a display device." Wang argues that the claimed surgical instrument should be interpreted to mean an "endoscopic instrument." By urging such a claim construction, Wang is reading limitations into its claim 1.

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Wang has provided no reason why the term surgical instrument should be construed so narrowly. The term "surgical instrument" is not vague, or ambiguous. We decline to read "endoscopic" into Wang claim 1.

Wang's remaining arguments are essentially the same as those made in its preliminary motion 2. That is, Green's '665 disclosure is essentially the same as Green's involved application. In its preliminary motion 2, Wang argues that Green does not have written description support in its claim 115 for the limitation to "move the surgical instrument in a desired direction relative to an object displayed on a display device." For the same reasons given above in connection with Wang's preliminary motion 2, we are not persuaded by Wang's arguments in its opposition 2.

For the reasons stated above, Wang claim 1 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Green '665.

Wang claims 2 and 3

Green argues that Wang's claims 2 and 3 are unpatentable

under 35 U.S.C. § 103 as being obvious over '665 in view of U.S. Patent 5,078,140 (Kwoh) (Paper 33 at 17). Wang claim 2 depends on claim 1 and recites "wherein the step of inputting a command comprises a save command." Wang claim 3 depends on Wang claim 1 and recites "wherein the step of inputting a command comprises a return command."

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Green argues that Kwoh '140 describes controlling movement of a robotic arm so that the arm can be summoned back by the surgeon to occupy a position it previously occupied. Green directs us to the following passage in Kwoh:

By pushing two buttons on the manual controller, or by typing commands into a keyboard that interacts with the computer software, the surgeon may control the robotic arm 1 so that the probe holder 21 moves in or out along the trajectory, as shown in Fig. 5, as close to the head as desired. The surgeon can use the buttons on the manual control unit of the robotic arm 1 to alter the trajectory. (Green Ex. 1035, col. 7, lines 11-18).

And:

After the burr hole is drilled, the robotic arm 1 can be programmed by means of the stereotactic computer software to quickly retract to its standby position or, if desired, the robotic arm 1 can be left in place. As soon as the surgeon finishes cleaning and sterilizing the burr hole, the robotic arm 1 can be summoned back to the trajectory that it left. (Green Ex. 1035, col. 7, lines 35-41).

Green argues that in order for the robotic arm to be summoned back to a position it previously occupied, two things must occur. First, the computer must be able to remember the location of the previous position to which the arm is "summoned back." Thus, the computer controller saves the information in

memory. Second the operator must be able to command the arm to move to the previous position - or to use a return command (Paper 33 at 18). Green's assertions are supported by the declaration of Dr. Salisbury (Green Ex. 1043 ¶¶ 17-18).

Green argues that the motivation to combine the teachings of the references comes from the nature of the art itself, in that both '665 and Kwoh pertain to controlling movement of the robotic arm in response to a surgeon's input instructions (Paper 33 at 19).

In response, Wang argues that '665 does not teach the limitations of the base claim 1, and thus there is no primary reference with which to combine Kwoh. For the reasons stated above, Wang's arguments rebutting Green's prima facie case of anticipation were not deemed persuasive. Wang further argues that merely providing for summoning back of the device does not disclose the limitations of an input command saving a position or a second input command returning the surgical instrument to a saved position (Paper 54 at 24).

Wang's arguments are unsupported by evidence, and are based on attorney argument alone. Wang fails to direct us to evidence in the form of a publication or declaration that would sufficiently rebut Green's prima facie case. Kwoh describes that the operator can summon back the arm to a prior position. Wang has failed to sufficiently explain why Kwoh does not "summon

back" by saving the original position and then returning to the original position.

Accordingly, Wang's claims 2 and 3 are unpatentable under 35 U.S.C. § 103 over '665 in view of Kwoh.

For the reasons stated above, Green preliminary motion 2 is granted.

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**D. ORDER TO SHOW CAUSE**

Wang's preliminary statement does not allege a date that is earlier than Green's January 21, 1992 effective filing date. Wang's earliest alleged date, a date of conception, is February 27, 1992. Thus, it is appropriate to enter judgment against the junior party Wang. See 37 CFR § 1.640(d)(3).

Accordingly, it is

ORDERED that judgment as to Count 1 (Paper 1 at 5), the sole count in the interference, is awarded against junior party YULUN WANG, KEITH P. LABY, DARRIN R. UECKER, AMANTE A. MANGASER, and MODJTABA GHODOUSSI;

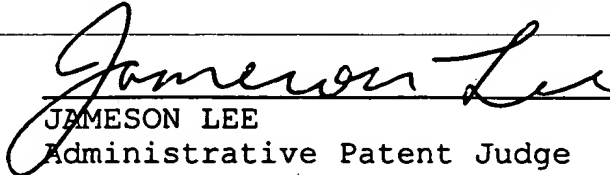
FURTHER ORDERED that junior party YULUN WANG, KEITH P. LABY, DARRIN R. UECKER, AMANTE A. MANGASER, and MODJTABA GHODOUSSI is not entitled to a patent containing claims 1-3 (corresponding to Count 1) of U.S. Patent 5,878,193;

FURTHER ORDERED that a copy of this paper shall be made of record in the files of application 08/709,930, and U.S. Patent 5,878,193;

FURTHER ORDERED that if there is a settlement agreement,  
attention is directed to 35 U.S.C. § 135(c) and 37 CFR § 1.661.



RICHARD E. SCHAFER  
Administrative Patent Judge



JAMESON LEE  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES



SALLY C. MEDLEY  
Administrative Patent Judge

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The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 97

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

YULUN WANG, DARRIN R. UECKER, CHARLES S. JORDAN,  
JAMES W. WRIGHT, KEITH PHILLIP LABY, and JEFF D. WILSON

Junior Party,  
(Patent 5,855,583),

v.

PHILIP S. GREEN

Senior Party  
(Application 08/709,930).

MAILED

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AND INTERFERENCES

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OFFICE OF PETITIONS

Patent Interference No. 104,645

Before SCHAFFER, LEE, and MEDLEY, Administrative Patent Judges.

MEDLEY, Administrative Patent Judge.

DECISION ON PRELIMINARY MOTIONS

A. Introduction

This interference was declared on December 7, 2000. Wang has filed a preliminary motion 1 under Rule 633(a) for judgment against Green's involved claims 118-126 on the ground that the claims are unpatentable under 35 U.S.C. § 112, ¶ 1 (Paper 20).

EXHIBIT G



Green preliminary motion 1, filed under 37 CFR § 1.633(a), seeks judgment against Wang on the ground that Wang's involved claims 1-3 are unenforceable due to inequitable conduct (Paper 24). Green has filed a preliminary motion 2 under Rule 633(c)(3) to designate Wang claims 7 and 12 as corresponding to the count (Paper 25). Green preliminary motion 3 is a contingent Rule 633(a) preliminary motion for judgment against Wang on the ground that Wang claims 7 and 12 are unenforceable due to inequitable conduct (Paper 26).

Green preliminary motion 4 is a motion filed under Rule 633(a) for judgment against Wang's involved claims 1-6, 8-11 and 13-15 under 35 U.S.C. § 102 based on various pieces of prior art (Paper 27). Green preliminary motion 5 is a contingent motion for judgment against Wang claims 7 and 12 under 35 U.S.C. § 102 based on prior art (Paper 27). Green has filed a preliminary motion 6 requesting, under Rule 633(e), declaration of an interference between Green's 09/353,536 application filed 14 July 1999 and Wang's involved patent (Paper 29). Through Green miscellaneous motion 7, Green requests that Wang patent 6,063,095 be added to the interference (Paper 30).

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Green preliminary motion 8 is a contingent motion requesting the benefit, under Rule 633(f), of its earlier applications (Paper 31). Green preliminary motions 9-11 are all contingent upon the granting of Wang preliminary motion 1 to (1) add claims

153-160 to Green's involved application; (2) to substitute Green's '536 application for its present application; and (3) for benefit of earlier Green applications if the '536 application is substituted.

Oral argument was held on 10 October 2001.

For the reasons that follow, Wang preliminary motion 1 is denied. Green preliminary motions 2 and 5 are deferred. Green preliminary motion 4 is granted-in-part, denied-in-part and deferred-in-part. Green preliminary motions 6 and 7 are denied. Green preliminary motions 1, 3 and 8-11 are dismissed.

**B. Findings of fact**

1. Wang is involved on the basis of Patent 5,855,583 ('583), granted 5 January 1999, based on application 08/755,063, filed 22 November 1996.

2. Wang has been accorded benefit for the purpose of priority of application 08/603,543, filed 20 February 1996.

3. Green is involved on the basis of application 08/709,930, filed 9 September 1996.

4. Green has been accorded benefit for the purpose of priority of application 07/823,932, filed 21 January 1992.

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5. Wang real party in interest is Computer Motion, Inc. (Paper 9).

6. Green real party in interest is Intuitive Surgical, Inc. (Paper 7).

7. The interfering subject matter pertains to a medical robotic system.

8. Count 1, the sole count of the interference, is claim 3 of Wang or claim 119 of Green.

9. Green claim 119 is identical to Wang claim 3 (including all of the limitations of independent Wang claim 1 (Green claim 118) and is as follows:

A medical robotic system, comprising:

a robotic arm;  
a coupler that pivotally attaches to the arm;  
an endoscopic surgical instrument that is held by said coupler; and

a controller having a handle, the controller in electrical communication with the robotic arm; and

wherein movement at the controller produces a proportional movement of the robotic arm and surgical instrument; and

wherein said endoscopic surgical instrument is an articulable endoscopic surgical instrument.

10. The following claims were originally designated as corresponding to count 1:

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Wang: 1-6, 8-11 and 13-15

Green: 118-126

11. The following claims were originally designated as not corresponding to count 1:

Wang: 7 and 12

Green: 115, 138, 139, 141, and 144

**C. Decision**

Green preliminary motion 1 - inequitable conduct

Green moves for judgment against Wang on the ground that Wang's involved claims are unpatentable due to inequitable conduct.

It is generally the practice of the Trial Section to defer a preliminary motion for inequitable conduct until the priority phase or even after the priority phase of the interference. Here, the junior party Wang has failed to allege a date that is prior to Green's effective filing date in its preliminary statement. Thus, there will be no priority phase of the interference. Since judgment will eventually be entered against the junior party Wang, there is no occasion to decide Green preliminary motion 1.

Accordingly, Green preliminary motion 1 is dismissed.

Green preliminary motion 2 - to designate  
Wang claims 7 and 12 as corresponding

Green moves under 37 CFR § 1.633(c)(3) to designate Wang claims 7 and 12 as corresponding to the count. Wang claim 7 depends indirectly from claim 1. Claim 12 depends directly from claim 9. Wang claim 7 recites "[t]he system of claim 6 wherein the tool attached at the distal end of the articulable surgical instrument is a stapler." Claim 12 recites "[t]he method of

claim 9 wherein the surgical instrument is a stapler."

Apparently, other claims that recite specific instruments such as cauterizers (Wang claim 8), graspers (Wang claim 11), cutting blades (Wang claim 14) were originally designated as corresponding to the count. However, Wang claims 7 and 12 reciting a stapler were not.

Green argues that it was known at the time of the invention that staplers were standard endoscopic surgical instruments. In support of its argument, Green relies on U.S. patent 5,807,378 (Jensen) which describes that the laparoscopic surgical instrument described could include "working tools such as clamps, graspers, scissors, staplers, and needle holders" (Green Ex. 1078, col. 1, lines 15-18), and that such instruments may be used in surgical robotic systems (Green Ex. 1078, col. 1, lines 29-32).

Green argues that:

Jensen makes clear that staplers, in addition to graspers, scissors, needle holders and cautery, are standard endoscopic surgical instruments. Simply specifying that the tool/instrument used in the surgical procedure is a known, conventional endoscopic tool/instrument, such as a stapler, cannot render that subject matter independently patentable from that already involved in the interference (Paper 25 at 6).

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Wang argues that Jensen is not prior art to it and that Green has failed to meet its prima facie case of obviousness. We first address Wang's arguments regarding Green's prima facie case. In that respect, Wang argues that:

[I]t is respectfully submitted that not all endoscopic surgical instruments are the same and that use of one does not make the use of all others obvious. It is important to appreciate that different endoscopic instruments perform different functions and therefore require different structures. Such different structures require different interfaces with medical robotic system[s]. Therefore, given that a system utilizes one type of endoscopic surgical instrument, it is not necessarily true that that system can use to [sic] other endoscopic surgical instruments. Since a medical robotic system may not be compatible with particular endoscopic surgical instruments, it can not be obvious to use all such instruments (Paper 48 at 6).

Wang fails to sufficiently rebut Green's prima facie case of obviousness. Wang claims 7 and 12 do not recite specific structural interfaces between the instrument/tool and the medical robotic system. The claims merely specify that the instrument/tool be a stapler. Wang relies on attorney argument alone to suggest that it may be difficult to use some surgical instruments over others with a robotic system interface. Wang does not even go as far as to suggest that a stapler would be one of the surgical instruments that would be difficult to interface with a robotic system. In any event, merely stating that it would be difficult to interface a stapler with a robotic system, does not, without more mean, that it would not be obvious to interface a stapler with a robotic system. The test is whether the modification would have been obvious, not whether the modification would have been difficult to accomplish.

More importantly, Wang has failed to direct us to evidence that would demonstrate that interfacing a stapler with a robotic

system would not be obvious to one skilled in the art. Wang fails to sufficiently demonstrate that Jensen fails to teach or suggest using a stapler. As Green has pointed out to us, Jensen does teach using a stapler. Wang has failed to demonstrate otherwise. For the above reasons, we conclude that Wang's claims 7 and 12 should correspond to the count, e.g. that the Jensen reference teaches or suggests using surgical instruments in a robotic system that are staplers, provided that Wang fails to sufficiently demonstrate that the Jensen reference is not prior art to it.

Wang argues that the Jensen reference is not prior art to it, since Wang alleges an earlier date of invention in its preliminary statement. (Paper 48 at 5). Although it is not clearly articulated in Wang's opposition, during oral argument, counsel for Wang requested that we defer the issue of whether Jensen is prior art to it until the priority phase of the interference.

As explained in Leveen v. Edwards, 57 USPQ2d 1416, 1420 (BPAI 2000), a party seeking to antedate a reference has two choices. One of the choices is for the opponent to call attention to its preliminary statement and ask that a decision on the preliminary motion be deferred until the priority phase of the interference. That is in effect what Wang has requested here.

However, since Wang has failed to allege a date, in its preliminary statement, that is earlier than Green's effective filing date, there will not be a priority phase in this interference. Nonetheless, we will give Wang an opportunity to antedate the Jensen reference in due course as indicated at the end of this decision.

In its preliminary statement, Wang alleges an earlier date of conception that is prior to the filing date of the Jensen reference. Wang's alleged reduction to practice is subsequent to the effective filing date of the Jensen reference. However, Wang further alleges a date of "efforts to reduce to practice" that is prior to the Jensen effective filing date.

Green argues, in its reply, that Wang cannot qualify for the two choices<sup>1</sup> given in LeVeen, since Wang's preliminary statement has not alleged "a date of invention" before the effective filing date of the Jensen patent (Paper 73 at 3). Green argues that Wang's earliest alleged reduction to practice is November 27, 1995, five months after Jensen's effective filing date.

Green has failed to demonstrate that the "date of invention" need be in the form of an alleged reduction to practice prior to the effective filing date of the reference. A more reasonable interpretation is that an earlier "date of invention" means (1)

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<sup>1</sup> The other choice given in LeVeen, is for the opponent to present proofs under 37 CFR § 1.131 together with its opposition.



an earlier reduction to practice; or (2) an earlier conception coupled with diligence prior to the effective filing date of the reference to a reduction to practice. This is consistent with 37 CFR § 1.131<sup>2</sup> and, LeVeene, in which the latter, permits an opponent to postpone its showing to overcome a reference during the priority phase of the interference.

Moreover, Green has not shown that an alleged "date of invention" in the context of a preliminary statement somehow acts to limit a party's ability to antedate a prior art reference under 37 CFR § 1.131. The issues between priority of invention and antedating a reference are not the same. In antedating a reference, Wang is not attempting to establish a "date of invention" for priority purposes against Green. Whatever Wang demonstrates under 37 CFR § 1.131, it does not operate to establish a "date of invention" against Green for priority purposes beyond the date of invention alleged in Wang's preliminary statement.

Even assuming that an alleged "date of invention" in the preliminary statement limits what Wang can antedate under 37 CFR § 1.131, Green has not demonstrated that Wang did not, in its

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<sup>2</sup> 37 CFR § 1.131(b) states in part that the showing shall...  
establish reduction to practice prior to the effective filing date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application.

preliminary statement, rely on reasonable diligence to establish a "date of invention." Wang states in its preliminary statement that "efforts to reduce to practice began" on April 21, 1992. Green takes exception to the wording and argues that "efforts" without "diligence" are insufficient.

A preliminary statement is not evidence. 37 CFR § 1.629(e). It is analogous to a pleading in a civil action. Wang's allegations are just that - allegations. Here, Wang's allegation of a prior date of conception coupled with "efforts" made to reduce to practice the invention until its reduction to practice is enough to defer the preliminary motion and to give Wang an opportunity to antedate Jensen '378. At the end of the day, Wang must demonstrate that it can antedate the Jensen reference. It cannot rely solely on the allegations made in its preliminary statement.

For the reasons stated above, we exercise our discretion to defer Green preliminary motion 2 and to give Wang an opportunity to antedate the Jensen reference. Accordingly, Green preliminary motion 2 is deferred.

Green preliminary motion 3 - claims 7 and 12 are unpatentable due to inequitable conduct

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Green preliminary motion 3 is contingent upon the granting of Green preliminary motion 2 for judgment against Wang claims 7 and 12 due to inequitable conduct (Paper 26).

It is generally the practice of the Trial Section to defer a preliminary motion for inequitable conduct until the priority phase or even after the priority phase of the interference. Here, the junior party Wang has failed to allege a date that is prior to Green's effective filing date in its preliminary statement. Thus, there will be no priority phase of the interference. Since judgment will eventually be entered against the junior party Wang, there is no occasion to decide Green preliminary motion 3, even if the contingency materializes. Thus, Green preliminary motion 3 is dismissed.

Green preliminary motion 4 - unpatentability of Wang's involved claims based on prior art

Green preliminary motion 4 is for judgment against Wang on the ground that Wang's involved claims 1-6, 8-11, and 13-15 are unpatentable based on various prior art references.

Green begins its discussion with Wang claim 9 as being anticipated individually by various prior art references. Wang claim 9 is as follows:

A method for operating a surgical robotic system for performing a surgical procedure on a patient, the method comprising:

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(1) ~~providing a first articulate arm, a controller and an input device which receives input commands, the first articulate arm in electrical communication with the controller and the controller in electrical communication with the input device;~~

(2) cutting at least one incision into the patient;

(3) attaching a surgical instrument to the first articulate arm;

(4) inserting said surgical instrument into the patient through the at least one incision;

(5) generating input commands to move said surgical instrument in accordance with the procedure being performed wherein said robotic arm moves said surgical instrument in accordance with the input commands; and

(6) removing the surgical instrument from the patient.

Green argues that Wang claim 9 is anticipated under 35 U.S.C. § 102(b) by U.S. Patent 5,184,601 (Putman). Green argues that each and every element of Wang claim 9 is described in the Putman reference. Green directs us to figures and passages in the Putman reference that describe the claimed features. In addition, and in compliance with paragraph 26(d) of the Standing Order, Green includes an Appendix A of Wang claim 9 with citations to Putman for every claimed element.

In its opposition, Wang argues that its claim 9 is not anticipated by Putman, since the device disclosed in Putman is intended to "stabilize" an endoscope as evidenced by the locking of joints 26 and 28, and is not intended to actively maneuver a surgical instrument such as a grasper or cutting tool (Paper 52 at 14).

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~~Wang's argument is not persuasive. Putman discloses that~~  
the operator can move the endoscope during the operation until the desired video presentation is obtained. For example, Putman describes:

If fine adjustment of elevation or longitudinal position is desired during the course of a surgical procedure, the

operating surgeon S applies momentary foot pressure to the master control switch 128 which enables the foot switches 120, 122, 124 and 126. The surgeon S then applies foot pressure to the appropriate switch until the desired video presentation is obtained. (Green Ex. 1011, col. 8, lines 53-59).

From the above, it is clear that Putman provides more than a stabilizer. The surgical instrument, e.g. the endoscope, may be manipulated during the surgical procedure by the surgeon, through an input device, a controller, and by movement of an articulate arm. Furthermore, Wang claim 9 does not claim a grasper or cutting tool. Wang claim 9 recites a surgical instrument. An endoscope is a surgical instrument and thus meets the limitation of the claim.

Wang additionally argues that Putman does not disclose performing a surgical procedure, or moving a surgical instrument to perform the procedure (Paper 52 at 15). The preamble of Wang claim 9 recites a method "for operating a surgical robotic system for performing a surgical procedure on a patient." Putman describes a surgeon S that operates a robotic system (**Fig. 1**) for performing a surgical procedure on a patient such as ovarian biopsy, hysterectomy, or hernia repair. (Green Ex. 1011, col. 2, lines 5-23). ~~The surgeon can manipulate the endoscope to a~~  
desired position during the procedure for performing the surgical procedure on the patient. The preamble is broad enough to include manipulating an instrument in order to perform the surgical procedure.

Wang additionally argues that Putman does not disclose the use of a controller that "computes" the movement of the articulate arm and surgical instrument like Wang describes in its involved specification (Paper 52 at 14). Wang claim 9 does not claim a controller "that computes" the movement. Rather, Wang claim 9 recites a controller. The claim further recites that the articulate arm is in electrical communication with the controller and that the controller is in electrical communication with the input device.

Putman describes an articulate arm assembly 18 which is in electrical communication with a controller 46 (Fig. 11). The controller is in electrical communication with an input device 118. Wang has failed to sufficiently demonstrate why its claim 9 should be interpreted such that a controller actually means a computer. Wang's claim 9 is broad and we know of no reason, nor has Wang provided us with one, why we should interpret Wang's claim 9 narrowly such as to add limitations to the claim.

Wang lastly argues that Putman does not anticipate its claim 9, since the reference, although cited in Green's involved application, was not applied against Green's involved claim 123, which is identical to Wang claim 9. An examiner's determinations during ex parte prosecution of an involved application is of no moment to this proceeding. During an interference, independent review of issues are made. See Glaxo Wellcome, Inc. v. Cabilly, 56 USPQ2d 1983, 1984 (BPAI (ITS)). (Neither the Board nor a

party are bound by an ex parte decision made during prosecution by another party. A motion in an interference is not an appeal from the examiner's decision, but an independent request to the Board).

Green additionally argues that Wang PCT publication WO 94/03113 anticipates Wang claim 9 under 35 U.S.C. § 102(b). Green directs us to where in the Wang PCT publication the claimed elements are described. In addition and in compliance with paragraph 26(d) of the Standing Order, Green includes an Appendix D of Wang claim 9 with citations to the Wang PCT publication for every claimed element.

In its opposition, Wang argues that:

At page 15, line 9, Green contends that Wang's PCT Publication anticipates claim 9 of the '583 patent. The response is that Wang PCT does not disclose a handle/input device recited in claim 9 nor does it disclose using a surgical robot to perform a surgical procedure. If the Board interprets claim 9 broad enough to read on Wang PCT then Wang would be entitled to the filing date of Wang U.S. Patent Application No. 927,801 under 35 U.S.C. 120 which would remove Wang PCT as a prior art reference. (Paper 52 at 20-21).

Wang's opposition has failed to sufficiently rebut Green's prima facie case of anticipation with respect to the Wang PCT publication. Specifically, Wang's arguments are not commensurate in scope with the language of Wang's claim 9. Wang's claim 9 does not recite "a handle/input device", but rather recites "an input device which receives input commands." The Wang PCT publication shows and describes a foot pedal 22 in Fig. 1, e.g.

an input device, which receives input commands by the foot of the surgeon (Green Ex. 1091, abstract). A computer 20 receives input signals from the foot pedal 22 to control the movement of a robotic arm 26. Thus, the Wang PCT publication meets the limitation of "an input device which receives input commands" from the user.

Wang's claim 9 further does not recite "a surgical robot to perform a surgical procedure." Rather, Wang claim 9 recites a method for operating "a surgical robotic system for performing a surgical procedure." The abstract of the Wang PCT publication describes the invention as "[a] robotic system (10) that moves a surgical instrument (18)" and thus meets the limitation of a "surgical robotic system for performing a surgical procedure."

Wang further argues that if it is determined that the Wang PCT publication anticipates Wang claim 9, then Wang should be accorded priority of the Wang PCT publication. Wang fails to demonstrate why it should be entitled to priority of the Wang PCT publication under 35 U.S.C. § 120, by explaining how it meets the § 120 requirements. We decline the invitation to determine on our own whether Wang should be accorded priority of the Wang PCT publication under 35 U.S.C. § 120. That Wang should have done in the first instance. Accordingly, Wang claim 9 is unpatentable under 35 U.S.C. § 102(b) in view of the Wang PCT publication.

Green also argues that Wang's claims 1, 3, 4, 6, 8, 9, 11, 13, and 14 are anticipated by (1) Green PCT publication WO



93/13916 under 35 U.S.C. § 102(b), (2) Green U.S. Patent 5,808,665 under 35 U.S.C. § 102(e), (3) Jensen U.S. patent 5,807,378 under 35 U.S.C. § 102(e), and (4) the "Green Video Presentations" under 35 U.S.C. §§ 102(a) and (b). Green additionally argues that Wang claims 2, 5, 10 and 15 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by Jensen.

Green fails to explain how the "Green Video Presentations" anticipate any of Wang's involved claims. In essence, Green wants us to view the video on our own and try to figure out how the features shown in the video meet the limitations of Wang's various claims. We decline the invitation to do this. Wang as the movant bears the burden to demonstrate that it is entitled to the relief sought. Wang should have explained how the video anticipates Wang's claims by explaining the video presentation. For these reasons, Green has failed to sufficiently demonstrate that any of Green's claims are anticipated by the "Green Video Presentations." Thus, we need not and have not considered Wang's opposition with respect to those arguments made regarding the video.

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Green '665 and the Green PCT publication appear to have the same disclosures. The Jensen '378 patent incorporates by reference the same disclosure (e.g. that of Green's 07/823,932 application) (Green Ex. 1078, col. 5, lines 1-6). These three references also have the same disclosure as Green's involved

application. Essentially all of the references and the involved Green application either incorporate by reference, or are continuations of Green's benefit application 07/823,932.

Green directs us to where in each of the Green PCT publication, the Green '665 patent and the Jensen '378 patent, the claimed elements are described. In addition and in compliance with paragraph 26(d) of the Standing Order, Green includes an (1) Appendix B of Wang claims 1, 3, 4, 6, 8, 9, 11, 13, and 14 with citations to the Green PCT publication for every claimed element; (2) Appendix C of Wang claims 1-6, 8-11 and 13-15 with citations to Jensen for every claimed element; and (3) Appendix E of Wang claims 1, 3, 4, 6, 8, 9, 11, 13, and 14 with citations to Green '665 for every claimed element.

In its opposition, Wang argues that the Green PCT publication and Green '665 with respect to Wang claim 9, fail to provide an enabling disclosure of how to create a remote pivot point at the point of incision (Paper 52 at 16). Wang claim 9 does not recite providing a remote pivot point at the point of incision. Wang claim 9 does not recite moving the surgical instrument about a pivot point. Wang claim 9 recites "cutting at least one incision into the patient" and "inserting said surgical instrument into the patient through the at least one incision." Once again, Wang is impermissibly reading limitations into its claim 9 from its specification. Wang claim 9 is not ambiguous. The terms need no clarification. Wang provides no explanation as

to why its claim 9 should be interpreted such as to add limitations into its claims.

Note, that although the specification is useful in interpreting claim language, as the Federal Circuit has nonetheless stated, "the name of the game is the claim" In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). See also Giles Sutherland Rich, Extent of Protection and Interpretation of Claims - American Perspectives, 21 Int' Rev. Indus. Prop. & Copyright L, 497, 499 (1990) ("The U.S. is strictly an examination country and the main purpose of the examination, to which every application is subjected, is to try to make sure that what each claim defines is patentable. To coin a phrase, the name of the game is the claims.").

In In re Paulson, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) the Federal Circuit, quoting from E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1131 (Fed. Cir. 1988) stated:

Although it is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim, this is not to be confused with adding an extraneous limitation appearing in the specification, which is improper. By 'extraneous', we mean a limitation read into a claim from the specification wholly apart from any need to interpret particular words or phrases in the claim.

Since Wang has failed to sufficiently demonstrate that Wang claim 9 requires moving the instrument about "a pivot point," Wang's enablement argument is not persuasive.

In any event, Wang has failed to sufficiently demonstrate that one of ordinary skill in the art would be faced with undue experimentation to operate the instrument about the pivot point of the incision.

Wang directs us to the following passages in the '665 patent:

[Referring to Fig. 11] Forearm pivotal control motors and linkages, identified generally by reference numeral 188, provide for pivotal movement of arm 174 about pivot point 176 in the directions of arrows 152M and 154M. Pivotal motion about point 176 is provided by simultaneous lateral movement of the outer operating end of the manipulator and pivotal movement of arm 174. Movements are coordinated such that the center of rotation of forearm 174 is fixed in space at point 176 at the level of the abdominal wall. (Emphasis added). (Green Ex. 1065, col. 9, lines 46-54).

Wang argues that neither the '665 nor the Green PCT specification provide an enabling disclosure for a pivot point that is remote from the controller, e.g. 188 (Fig. 11) for the forearm 174 (Fig. 11). Specifically, Wang argues that '665 fails to disclose a mechanism, structure, or control law that would create a pivot point from item 188 at point 176 (Paper 52 at 17).

Wang then directs us to the cross-examination of Dr. Salisbury to conclude that the '665 patent does not disclose a mechanism behind 142 (Fig. 11) which moves item 142 (Paper 52 at 17). Wang further argues that Dr. Salisbury's explanation of providing two plates that could create a remote pivot point would not function with the disclosed structure in '665.

Wang's assertions about the '665 patent lacking disclosure of the mechanisms and structures that would be necessary to pivot the instrument about the incision are conclusory. Wang fails to direct us to evidence that would support Wang's arguments that (1) the '665 disclosure fails to provide the mechanisms that one of ordinary skill would need to practice the claimed invention or (2) that Green's witness, Salisbury is incorrect when he says that there are known mechanisms that would work to provide a remote pivot point at the point of the incision. Wang relies on attorney argument alone to conclude that the '665 specification is not enabled and that portions of Salisbury's testimony is incorrect. Note that argument of counsel cannot take the place of evidence lacking in the record. Estee Lauder Inc. v. L'Oreal, S.A., 129 F.3d 588, 595, 44 USPQ2d 1609, 1615 (Fed. Cir. 1997).

Eventually Wang does direct us to the declaration of Susan Hackwood to support its conclusion that the '665 patent and the corresponding Green PCT publication do not provide the structure or mechanisms that would be necessary to create a pivot point remote from item 188 at point 176 (Fig. 11). Dr. Hackwood states that the '665 patent does not disclose the mechanism that would enable the surgical instrument to pivot around a remote pivot point. Dr. Hackwood further states that:

It is my opinion that in 1992, when this patent ['665 patent] was filed, that creating a "remote pivoting mechanism" within 188 [of Fig. 11] would be a very challenging task, and that someone skilled in the art would not be able to create such a mechanism without considerable

experimentation. Even today, such a design problem would be very challenging. (Wang Ex. 2023, ¶¶ 9-11).

Dr. Hackwood's assertions are conclusory. Dr. Hackwood's declaration is not sufficiently specific as to the nature and duration of the work that would be required of one with ordinary skill in the art to practice the Green '665 patent or Green PCT publication. Dr. Hackwood fails to adequately explain why creating a "remote pivoting mechanism" would be a "very challenging task", or why the experimentation required would be "considerable." The terms Dr. Hackwood uses with respect to "very challenging" and "considerable experimentation" are vague and indefinite. Not all "challenging" or "considerable" experimentation necessarily constitutes undue experimentation. Note, that the test for enablement is whether the amount of required experimentation is undue. A technique that is routinely difficult does not mean that the experimentation required is undue. Johns Hopkins Univ. v. CellPro, Inc., 152 F.3d 1342, 1360, 47 USPQ2d 1705, 1718 (Fed. Cir. 1998). The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine. For these reasons, we are not persuaded that the '665 patent or the Green PCT publication lack enabling disclosures.

Wang additionally argues that neither the Green PCT publication or the Green '665 patent disclose a device capable of releasably attaching a surgical instrument as required by Wang

claim 9, since the instrument described is fixedly attached (Paper 52 at 20).

Wang's claim 9 does not recite releasably attaching the surgical instrument during the surgical procedure. Wang's claim 9 does not even require that the step of attaching a surgical instrument to the first articulate arm be done during the operation. The sequence of steps are not necessarily dependent on each other so that after the patient is cut, the surgical instrument be attached. The language is broad and imposes no particular order for attaching the surgical instrument to the articulate arm.

That the surgical instrument described in the Green PCT publication or Green '665 are "fixedly attached" as Wang argues, is of no moment. Wang's claim 9 does not foreclose "fixedly" attaching the surgical instrument to the articulate arm. The claim is broad enough to include attaching the instrument to the articulate arm at any point in time prior to the actual operation.

For the reasons stated above, Wang claim 9 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by the Green PCT publication. Wang claim 9 is additionally unpatentable under 35 U.S.C. § 102(e) as being anticipated by the Green '665 patent.

With respect to Wang claim 1, Wang argues that neither the Green PCT publication nor Green '665 describe or disclose that the "movement at the controller produces a proportional movement

of the robotic arm and surgical instrument." Wang argues that the limitation requires scaling the movement at the controller so that the robotic arm and surgical instrument have a movement that is different (Paper 52 at 21). Again, Wang is reading limitations into its claims. Wang claim 1 does not require scaling the movement. In any event, Wang has failed to sufficiently demonstrate that the Green '665 patent or the Green PCT publication do not describe a "scaling" feature.

Wang argues that the Green PCT publication and Green '665 describe changing the work site dimensions, but do not describe scaling the movement at the controller so that the robotic arm and surgical instrument have a movement that is different. Wang directs us to those portions of Green's PCT publication and the '665 patent that state:

Any scale factor may be employed, the invention not being limited to full-scale manipulation. For example, the worksite can be small, including microscopic in size, in which case the optical parameters, including distance to object, interocular distance and focal length, and mechanical and dimensional parameters are appropriately scaled.

By using appropriate scaling an image magnification and force torque feedback, and by locating the image 30V of the workspace 30 adjacent hand-operated control means 76R and 76L, the operator is provided with a strong sense of directly controlling the end effectors 40R and 40L. (Green Ex. 1090 at 11, lines 14-26, Green Ex. 1065, col. 6, lines 13-23).

Wang has failed to sufficiently demonstrate that one of ordinary skill in the art would not understand the above to mean that the movements made at the controller would necessarily be



different from the movements of the arm and thus the surgical instrument. If the worksite is miniaturized, movement made at the worksite would necessarily be a smaller movement than that made by the operator at the controller. Indeed, Green's PCT publication and '665 patent further describe:

Servomechanism scaling of axial movement of the telescopic control arms is provided such that axial extension or retraction thereof results in a smaller extension or retraction of the telescopic insertion sections (Green Ex. 1090, page 16, lines 2-6 and Green Ex. 1065, col. 8, lines 29-33).

The above descriptions appear to support, for example, a proportional movement of the arm and surgical instrument that is different than the controller. That is, the Green PCT publication and Green '665 describe scaling of axial movement of the insertion arm (and thus the instrument) that is different than the controller.

Wang fails to sufficiently demonstrate otherwise. Wang has failed to direct us to supporting evidence in the way of a declaration or affidavit from one having ordinary skill in the art that demonstrates that the Green disclosures fail to convey to that person that the Green PCT publication or the Green '665 patent describe the features recited in Wang claim 1. Wang relies solely on attorney argument.

Wang additionally argues that neither the Green PCT publication nor Green '665 describe a "coupler that is pivotally attached to the arm", since neither describe a coupler that

allows the surgical instrument to be releasably attached to the robotic arm (Paper 52 at 22). Wang claim 1 does not require that the coupler allow the surgical instrument to be releasably attached to the robotic arm.

Wang claim 1 recites that the coupler is pivotally attached to the robotic arm and that the surgical instrument is held by the coupler. Wang claim 1 does not recite that the coupler allows for the releasable connection of the surgical instrument to the robotic arm. The connection between the coupler and the arm, and the coupler and surgical instrument can be fixed based on the broad claim language. For this reason alone, Wang has failed to sufficiently rebut Green's prima facie case with respect to its claim 1.

Still further, we are not persuaded by Wang's argument that since Green's set of annotated claims includes inconsistencies, that that also demonstrates that the Green PCT and/or Green '665 patent fail to describe a coupler that allows for releasable connection of the surgical instrument to the robotic arm. Merely pointing out inconsistencies in Green's annotated set of claims does not, without more, demonstrate that Green's PCT and/or Green '665 patent fail to describe Wang's claimed invention.

Wang claim 9 is a method claim that includes the limitation of "attaching a surgical instrument to the first articulate arm." Wang argues that since claim 9 corresponds to the count then it is consistent to interpret "coupler" as something that allows for

attaching a surgical instrument. This argument makes little sense. Wang apparatus claim 1 and Wang method claim 9 are different. Wang has failed to demonstrate why one would look to Wang claim 9 in order to interpret Wang claim 1. Wang claim 9 does not even recite a "coupler" as recited in Wang claim 1.

For these reasons, Wang has failed to sufficiently rebut Green's prima facie case of anticipation of Wang claim 1. Wang claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by the Green PCT publication and is further unpatentable under 35 U.S.C. § 102(e) as being anticipated by the Green '665 patent.

With respect to the Jensen '378 patent, Wang argues that Jensen is not prior art to it and directs us to its preliminary statement (Paper 52 at 20). For the same reasons given above in connection with Green preliminary motion 2, Wang will have an opportunity to antedate the Jensen '378 patent in due course. Accordingly, we exercise our discretion to defer-in-part Green preliminary motion 4 with respect to the patentability of Wang's claims 1-6, 8-11 and 13-15 in view of Jensen.

Wang argues, with respect to Wang claims 3, 4, and 6, that the Green PCT publication fails to provide an enabling disclosure for pivoting the distal end of the surgical instrument (Paper 52 at 24). Wang claims 3, 4, and 6 do not recite pivoting the distal end of the surgical instrument. In any event, Wang has failed to direct us to evidence that would demonstrate that the

Green PCT publication is not enabled.

Wang is silent with respect to the Green PCT publication and the Green '665 patent with respect to Wang dependent claims 8, 11, 13, and 14. Accordingly, Wang claims 3, 4, 6, 8, 11, 13 and 14 are unpatentable in view of Green PCT publication under 35 U.S.C. § 102(b) and under 35 U.S.C. § 102(e) in view of Green '665.

Green states that only the Putman and U.S. Patent No. 5,217,003 (Wilk) references are prior art to it (Paper 27 at 25). Green argues that neither reference alone or in combination teach or suggest the elements of the allowed claims of Green's involved application. In its motion, Green did not argue that any one of Wang's claims are unpatentable in view of the Wilk reference. Instead Green states that "[s]ince the Patent Office has already recognized that Wilk, U.S. Patent No. 5,217,003 [Ex. 1067] anticipates [Wang] claim 9, that basis for rendering claim 9 unpatentable is not further addressed herein. [See Ex. 1068, at 4-5, §5]." (Paper 27 at 20, Note 3).

Green claim 123 is identical to Wang claim 9. During ex parte prosecution of Green's involved application, the examiner rejected at least Green claim 123 under 35 U.S.C. § 102(e) as being anticipated by Wilk (Green Ex. 1068 at 4). However, we disagree that the examiner's determinations with respect to Green claim 123 equally apply to Wang claim 9. What an examiner does during ex parte prosecution is not binding on this board. See

Glaxo Wellcome, Inc. v. Cabilly, 56 USPQ2d 1983, 1984 (BPAI 2000). (Neither the Board nor a party is bound by an ex parte decision made during prosecution by another party. A motion in an interference is not an appeal from the examiner's decision, but an independent request to the Board).

Green did not move for judgment against Wang on the ground that Wang claim 9 is unpatentable under 35 U.S.C. § 102 as being anticipated by Wilk. That the examiner, during ex parte prosecution of Green's involved application, determined that Green claim 123 is unpatentable in view of Wilk is of no moment to this proceeding. Accordingly, we make no determinations as to whether Wang claim 9 is unpatentable in view of the Wilk reference.

As stated above, Green claim 123 is identical to Wang claim 9. As further stated above, we have determined that Wang claim 9 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Putman. Green has provided us with no reason why Putman does not also apply to its claim 123. Green only states that neither Putman nor Wilk teach or suggest the elements of its allowed claims<sup>3</sup>. Accordingly, Green claim 123 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Putman.

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<sup>3</sup> At the time of the Notice Declaring Interference, Green claims 118, and 123-126 of those claims corresponding to the count were rejected as being unpatentable based on various prior art (Green Ex. 1068). Claims 119-122 also corresponding to the count were indicated by the examiner as being allowable.

For the reasons stated above, Green's preliminary motion 4 is denied-in-part, granted-in-part, and deferred-in-part. Green's part of its motion seeking judgment against Wang on the ground that Wang's claims 1, 3, 4, 6, 8, 11, 13, and 14 are unpatentable based on the Green Video Presentations is denied. Wang claims 1, 3, 4, 6, 8, 11, 13, and 14 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by the Green PCT publication. Wang claims 1, 3, 4, 6, 8, 11, 13, and 14 are also unpatentable under 35 U.S.C. § 102(e) as being anticipated by the Green '665 patent. Wang claim 9 is additionally unpatentable under 35 U.S.C. § 102(b) as being anticipated by Putman. Wang claim 9 is further unpatentable under 35 U.S.C. § 102(b) as being anticipated by the Wang PCT publication. In addition, Green claim 123 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by Putman. We exercise our discretion to defer the determination of whether Jensen is prior art to Wang as outlined below.

The count is now Green claim 119. A notice redeclaring the interference is made in a separate, but concurring paper.

Green preliminary motion 5 - that Wang claims 7 and 12 are unpatentable

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Green preliminary motion 5 is for judgment against Wang on the ground that Wang claims 7 and 12 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,649,956 ('Jensen '956) (Paper 28). Green preliminary motion 5 is

contingent upon the granting of Green preliminary motion 2. Green preliminary motion 2 has been deferred. Accordingly, Green preliminary motion 5 is also deferred.

Green preliminary motion 6 - requesting an interference between Green 09/353,536 and Wang's involved patent

Green moves under Rule 633(e)(1) to declare an additional interference between Green uninvolved application 09/353,536 ('536), filed 14 July 1999 and Wang's involved 5,855,583 ('583) patent, and to designate its '536 claims 46-57 as corresponding to a proposed count.

Declaring an additional interference is within the discretion of this panel<sup>4</sup>. For the reasons that follow, Green's request for an additional interference is denied.

As the movant, Green must demonstrate that the claims it proposes to correspond to the proposed count are patentable. 37 CFR § 1.637(e)(iv) and (v). The movant must also demonstrate that the proposed count defines a separate patentable invention from all counts of the interference in which the motion is filed. 37 CFR § 1.637(e)(vii). Green has failed to sufficiently satisfy these requirements.

~~As the movant, Green should include an allegation that it is~~

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<sup>4</sup> The provisions of 35 U.S.C. § 135(a) are as follows:

(a) Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, an interference may be declared ... (emphasis added).

not aware of relevant prior art which would render its proposed claims unpatentable. Although Green does discuss one piece of prior art and argues that the art is prior to Wang but not Green (Paper 29 at 13), Green does not make an allegation that it is not aware of any other relevant prior art which would render its claims unpatentable.

Further, at the time Green filed its preliminary motion 6, on March 14, 2001, its '536 application had not yet been examined. Apparently, the application was examined in May 2001. The examiner rejected all of claims 46-57 and a non-final office action was mailed on May 10, 2001. Thus the claims stand rejected. No claim has been allowed.

In order to declare an interference, there must be at least one allowed claim in Green's '536 application that interferes with an allowed claim in Wang's involved patent. See 37 CFR § 1.603. This panel declines to determine if Green's '536 claims are patentable in the first instance. Here, it would be premature at this juncture to declare an interference when there are outstanding rejections against the Green '536 claims 46-57.

For these reasons alone, we exercise our discretion not to declare an additional interference between the involved Wang patent and the Green '536 application. However, there are still separate grounds upon which we deny Green preliminary motion 6 as follows.

Green's proposed count is: **claim 54 of '536 OR claim 55 of**



'536. There are several concerns regarding Green's proposed count. First, the '536 claims 54 and 55 stand rejected over prior art in the '536 application. Thus, at this point in time, the proposed count is not "patentable" to at least party Green.

Further, Green has provided no explanation regarding the differences between the two alternatives of the count. Green '536 claim 54 recites a "first articulate arm" whereas Green '536 claim 55 recites a "first robotic linkage." Green does not provide an explanation as to the differences between the two claim terms. Based on the record before us, there is no indication that the two terms do not render the two claims separately patentable. Green through its silence on this point has failed to sufficiently demonstrate that the two alternatives of the count are to the "same patentable invention."

Still further, the first alternative of the count recites "a first articulate arm" but later refers to "said robotic arm." The term "said robotic arm" in the first alternative of the count lacks antecedent basis. Green provides no explanation. For these separate reasons, we exercise our discretion not to declare an additional interference between Wang's involved patent and Green's '536 application.

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Green argues that the proposed count is separately patentable from the involved count since the proposed count "provides an independently patentable method to Green for removing and replacing the surgical instrument with a different

surgical instrument and inserting different surgical instrument[s] into the patient during a surgical procedure" (Paper 29 at 23). Green further argues that the Green '665 patent and the Jensen '378 and '956 patents that describe this interchangeability of instruments are not prior art against Green's '536 application.

Again, Green should include an allegation that it is not aware of relevant prior art which would render the claims unpatentable. Although Green does discuss the '665 Green patent and the Jensen patents as not being prior art to it, Green does not make an allegation that it is not aware of any other relevant prior art which would render the claims unpatentable.

At the time this interference was declared, the examiner determined that Wang's claim 10 should correspond to the count (attachment to paper 1). Wang claim 10 is similar to the first alternative of Green's proposed count. Based on various pieces of prior art, the examiner determined that Wang claim 10 (e.g. the new proposed count) was not separately patentable from the count.

In its preliminary motion, Green addresses only those references discussed by the examiner that are not prior art to Green, e.g. those references that do not predate Green's '536 effective filing date. However, Green failed to address at least one other reference relied on by the examiner. Green failed to discuss, U.S. patent 5,368,015 (Wilk). Wilk appears to have an

effective filing date that is prior to even the earliest alleged effective filing date of the Green '536 application.

Furthermore, Wilk appears to teach those features that Green argues distinguishes the proposed count from the involved count.

For example, Wilk states that:

As illustrated in Fig. 7, a schematically represented casing or shelving unit 258 carries, in predetermined locations marked by visually readable tabs (not shown), a plurality of alternatively utilizable laparoscopic instrument tips 259 including scissors 260, a graspers 262, a laser fiber 264, a retractor 266, a brush 268, a snare 270 including a capture pocket 272, a cauterization hook 274 and an irrigation tube 276. Generally, it is contemplated that shelving unit 258 holds the laparoscopic instruments in a two dimensional array in preassigned locations.

The instrument tips 259 in shelving 258 are alternatively utilizable in place of jaws 21 (Fig. 1). To that end, instrument shaft 20 (Fig. 1) and operative tips 259 are provided at a distal end and proximal ends, respectively, with interlocking elements for releasably securing selected operative tips 259 to the laparoscopic instrument shaft.

The different operative tips 259 may be secured and removed manually from the laparoscopic instrument shaft, by technical assistants in the operating room. (Emphasis added) (5,368,015, col. 9, lines 24-44).

While Green discusses those prior art references that are not prior to it, Green is silent with respect to Wilk and what it teaches. We believe Green should have discussed Wilk. Wilk appears to teach the feature of removing and replacing surgical instruments during operation, such as to render Green's proposed count obvious in view of the count. Green has failed to sufficiently demonstrate otherwise. Accordingly, for this additional reason, we exercise our discretion not to declare an additional interference.

Since Green has failed to sufficiently demonstrate that it is entitled to the relief sought, we need not and have not considered Wang's opposition. Green preliminary motion 6 is denied.

Green preliminary motion 8

Green preliminary motion 8 for benefit of Green's earlier applications is contingent upon the granting of Green preliminary motion 6 to declare an additional interference. Because we have denied Green preliminary motion 6, the contingency did not materialize. Therefore, Green preliminary motion 8 is dismissed.

Green preliminary motion 7 - to add Wang patent 6,063,095 to the interference

Green filed a request under 37 CFR § 1.642 to add Wang patent 6,063,095 ('095) to this interference. Adding a patent to an existing interference is within the discretion of the administrative patent judge (APJ)<sup>5</sup>.

A party seeking to add an application or patent to an interference must comply with the requirements set forth in the Standing Order. Those requirements are as follows (paper 1,

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<sup>5</sup> The provisions of 37 CFR § 1.642 are as follows:

During the pendency of an interference, if the administrative patent judge becomes aware of an application or a patent not involved in the interference which claims the same patentable invention as a count in the interference, the administrative patent judge may add the application or patent to the interference on such terms as may be fair to all parties. (Emphasis added).

para. 24, at 16):

The procedure applicable to Rule 635 miscellaneous motions shall apply to suggestions to add an application or patent to an interference (37 CFR § 1.642). Any suggestion shall:

- (a) identify the additional application or patent proposed to be added;
- (b) certify that a complete copy of the file wrapper of application or patent has been served on all opponents;
- (c) indicate which claims of the patent or application should be designated as corresponding to the count by explaining why there is an interference-in-fact between the claims of the patent or application sought to be added and the claims of the opponent's application or patent already involved in the interference; and
- (d) explain whether there are alternative remedies and, if so, why alternative remedies are not adequate, what attempts, if any, have been made to have the examiner recommend declaration of another interference involving the application or patent sought to be added to the interference.

According to subsection (c), Green must demonstrate that there is an interference-in-fact between Wang and Green with respect to Wang's '095 claims it seeks to add to the interference. Accordingly, Green must demonstrate that at least one of Green's claims that is designated to correspond to the count, and at least one of Wang's '095 claims Green seeks to add, define the same patentable invention. See 37 CFR § 1.601(j).

The definition of "same patentable invention" is set out in 37 CFR § 1.601(n) and is as follows:

Invention "A" is the same patentable invention as an invention "B" when invention "A" is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B"

assuming invention "B" is prior art with respect to invention "A". Invention "A" is a separate patentable invention with respect to invention "B" when invention "A" is new (35 U.S.C. 102) and non-obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

The proper analysis in determining if an interference-in-fact exists between Green's involved claims and the Wang '095 claims Green seeks to add is a two-way "same patentable invention" analysis. The claimed invention of Party A is presumed to be prior art vis-a-vis Party B and vice versa. Thus, Green must demonstrate that its claimed invention anticipates or renders obvious Wang's claimed invention and that Wang's claimed invention anticipates or renders obvious Green's claimed invention. See Winter v. Fujita, 53 USPQ 1234, 1243 (Bd. Pat. App. & Int. 1999).

Green compares Wang '095 claim 1 with count 1. The proper analysis, however, is for Green to demonstrate that Wang '095 claim 1 is claiming the same patentable invention as an involved Green claim. However, here Green claim 119 is the first alternative of the count. Therefore, we treat Green's comparison of Wang '095 claim 1 with the count as a comparison of Wang '095 claim 1 with Green claim 119.

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Green's claim 119 and Wang '095 claim 1 are reproduced below:

Wang '095 claim 1	Green 08/709,930 claim 119
<p>A robotic system for performing minimally invasive surgical procedures, the system generally comprising:</p> <p>a surgeon input device;</p> <p>a controller connected to the surgeon input device, the controller having at least one output port for providing signals indicative of movement at the surgeon input device;</p> <p>at least one robotic arm connected to the output port of the controller; and</p> <p>wherein movement of the surgeon input device results in a proportional filtered movement at the at least one cooperating robotic arm.</p>	<p>A medical robotic system, comprising:</p> <p>a robotic arm;</p> <p>a coupler that pivotally attaches to the arm;</p> <p>an endoscopic surgical instrument that is held by said coupler; and</p> <p>a controller having a handle, the controller in electrical communication with the robotic arm; and</p> <p>wherein movement at the controller produces a proportional movement of the robotic arm and surgical instrument, and wherein said endoscopic surgical instrument is an articulable endoscopic surgical instrument.</p>

Based on the record before us, Green has failed to demonstrate that there is an interference-in-fact between Wang and Green with respect to claim 1 of '095. Green has not demonstrated two-way "same patentable invention" with respect to claim 1 of the '095 patent. Green makes only the one-way argument that given the subject matter of Green's claim 119 (the first alternative of the count) as prior art, claim 1 of Wang's '095 patent to be added defines the same patentable invention.

Green did not demonstrate that Wang's '095 claim 1 anticipates or renders obvious Green's claim 119. Green's claim 119 recites features not claimed in Wang '095 claim 1. Specifically, Green claim 119 recites a coupler that pivotally attaches to the arm and that the surgical instrument is held by the coupler. Green

claim 119 further specifies that the surgical instrument is an articulable endoscopic instrument. At least these differences have not been accounted for by Green.

The purpose for the interference is to determine whether a patent should issue to Green notwithstanding the existence of the Wang '095 patent. The mere fact that a Green claim might render unpatentable a Wang patent claim is no impediment to granting a patent to Green. Green, by avoiding a two-way analysis, has not established that if Wang is the prior inventor that Green would not be entitled to a patent. Rather, by engaging in a one-way analysis, Green seeks to convert this interference into a post-grant cancellation proceeding.

We are not persuaded by Green's argument that the examiner's obviousness-type double patenting rejection of the '095 claims in view of Wang's involved claims demonstrates that there is an interference-in-fact between a Green involved claim and a '095 claim. What an examiner did during ex parte prosecution is of no moment to this proceeding. Examiners' conclusions are not binding on the Board. See Glaxo Wellcome, Inc. v. Cabilly, 56 USPQ2d 1983, 1984 (BPAI 2000). (Neither the Board nor a party is bound by an ex parte decision made during prosecution by another party. A motion in an interference is not an appeal from the examiner's decision, but an independent request to the Board). Green bears the burden to demonstrate that there is an interference-in-fact between the '095 patent and the Green



involved application. Further, the obviousness-type double patenting rejection was at best a one-way analysis.

In addition to explaining why there is an interference-in-fact, the Standing Order further requires that the moving party "explain whether there are alternative remedies and, if so, why alternative remedies are not adequate, what attempts, if any, have been made to have the examiner recommend declaration of another interference involving the application or patent sought to be added to the interference." (Paper 1, para. 24).

There is pending litigation between Wang and Green involving Wang's '095 patent. Thus, Green has at least one other remedy available to it regarding the '095 patent. That the litigation is stayed pending the outcome of interferences 104,643-645 is of no moment. The litigation does, nonetheless, provide an avenue for Green to challenge the patentability of the '095 patent.

Green further suggests that we alternatively declare a separate interference with the Wang '095 patent and the involved Green application, or that we declare a separate interference between Wang '095 and Green's '536 application, since doing so would be more manageable. We decline the suggestion. Green has failed to demonstrate that Wang '095 interferes with Green's involved application as discussed above. Green makes no comparison between its '536 application and the '095 patent.

For the above reasons, we exercise our discretion not to add the Wang '095 patent to this interference, or alternatively, not

to declare an additional interference between Green's involved application or Green's 536 application and the Wang '095 patent. Since Green failed to demonstrate that it is entitled to the relief sought (37 CFR § 1.637(a)), Wang's opposition need not and has not been considered. Green preliminary motion 7 is denied.

Wang preliminary motion 1

Wang preliminary motion 1 is for judgment against Green on the basis that Green's involved claims 118-126 are unpatentable under 35 U.S.C. 112, ¶ 1. Wang argues that the Green specification fails to provide written description support and enablement for (1) "proportional movement of the robotic arm and surgical instrument"; (2) a "coupler that pivotally attaches to the arm"; and (3) "attaching a surgical instrument to the first articulate arm."

Proportional movement

Wang argues that Green's specification fails to provide written description support for "movement at the controller produces a proportional movement of the robotic arm and surgical instrument" recited in Green's claims 118-122. Wang argues that

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"movement at the controller produces a proportional movement of the robotic arm and surgical instrument" requires scaling the movement at the controller so that the robotic arm and surgical instrument have a movement that is different (Paper 20 at 11). Wang is narrowly interpreting the claim language by

impermissibly looking to Wang's specification to interpret Green's claim (Paper 20 at 11).

Apparently, Wang is under the impression that a copied claim is interpreted in light of the patent from which it was copied. Wang is incorrect. Rule 633(a) expressly provides that:

In deciding an issue raised in a motion filed under this paragraph (a), a claim will be construed in light of the specification of the application or patent in which it appears.

Rule 633(a) is a procedural rule and governs this interference. Thus, we decline to interpret Green's claims 118-126 in light of Wang's specification. Green's claims, when it is necessary to do so, are to be construed in light of Green's specification.

The term proportional in the context of: "wherein movement at the controller produces a proportional movement of the robotic arm and surgical instrument" does not necessarily mean that the movement of the robotic arm and instrument be different than the movement of the controller. The word proportional means having a constant ratio. Thus, the movement may be the same. Wang fails to address this broader interpretation in its motion.

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Even if we are to interpret Green's claims to mean that the proportional movement means that the movement of the arm and instrument are different, Wang has failed to sufficiently demonstrate that Green's specification fails to provide written description support or enablement for such scaling.

Wang argues that the scaling described in Green's specification relates to changing worksite dimensions which is not the same as scaling the movement at the controller so that the robotic arm and surgical instrument have a movement that is different. Wang directs us to Green's specification which states that:

Any scale factor may be employed, the invention not being limited to full-scale manipulation. For example, the worksite can be small, including microscopic in size, in which case the optical parameters, including distance to object, interocular distance and focal length, and mechanical and dimensional parameters are appropriately scaled.

By using appropriate scaling an image magnification and force torque feedback, and by locating the image 30V of the workspace 30 adjacent hand-operated control means 76R and 76L, the operator is provided with a strong sense of directly controlling the end effectors 40R and 40L. (Green Ex. 1003, page 11, lines 14-26).

Wang has failed to sufficiently demonstrate that one of ordinary skill in the art would not understand the above to mean that the movements made at the controller would necessarily be different from the movements of the arm and thus the surgical instrument. If the worksite is miniaturized, any movement made at the worksite would necessarily be a smaller movement than that made by the operator at the controller. Indeed, Green's specification further describes:

Servomechanism scaling of axial movement of the telescopic control arms is provided such that axial extension or retraction thereof results in a smaller extension or retraction of the telescopic insertion sections (Green Ex. 1003, page 16, lines 2-6).

As the movant, Wang bears the burden to demonstrate that it is entitled to the relief sought. Wang's arguments are conclusory and unsupported by sufficient evidence. Wang argues that scaling of the worksite is for providing the user with a sense of directly controlling the end effectors at the worksite. Wang then concludes that the description does not provide scaling between movement at the controller and the movement of the arm and surgical instrument.

However, the descriptions recited above appear to support, for example a proportional movement of the arm and surgical instrument that is different than the controller. That is, the Green specification describes scaling of axial movement of the telescopic arm (and thus the instrument) that is different than the controller.

Wang fails to sufficiently demonstrate otherwise. Wang has failed to direct us to supporting evidence in the way of a declaration or affidavit from one having ordinary skill in the art that demonstrates that Green's specification fails to convey to that person that Green has written description support for Green's involved claims. Wang relies solely on attorney

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argument to demonstrate that it is entitled to the relief it seeks. However, as we have previously stated, attorney argument alone does not take the place of evidence.

Wang additionally argues that the Green specification fails to provide an enabling disclosure for how to achieve

proportional movement. However, Wang provides no explanation, nor directs us to supporting evidence that would demonstrate that it would require one of ordinary skill in the art undue experimentation to practice the claimed invention. Thus, Wang's enablement argument is not persuasive.

Coupler that pivotally attaches to the arm

Wang argues that Green does not have written description support in its involved specification for a "coupler that pivotally attaches to the arm" (Paper 20 at 15) as recited in Green's claims 118-122. Green claims 118-120 recite a coupler that is pivotally attached to a robotic arm and a surgical instrument that is held by the coupler. Green claim 121 depends on Green claim 120. Green claim 122 depends on claim 121.

Wang interprets "coupler that pivotally attaches to the arm" to require that the coupler allow for the releasable connection of the surgical instrument to the robotic arm (Paper 20 at 15). Wang looks to Wang's specification to interpret Green's claims.

Wang's interpretation of Green's claims is incorrect. As stated above, Rule 633(a) is a procedural rule and governs this interference. Rule 633(a) requires that Green's claims be

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interpreted in light of Green's specification.

Green's claims recite that the coupler is pivotally attached to the robotic arm and that the surgical instrument is held by the coupler. Green's claims do not recite that the coupler allows for the releasable connection of the surgical instrument

to the robotic arm. The connection between the coupler and the arm, and the coupler and surgical instrument can be fixed based on the claim language. For this reason alone, Wang has failed to demonstrate that Green's claims fail to describe a coupler pivotally attached to the arm.

Still further, we are not persuaded by Wang's argument that since Green's set of annotated claims includes inconsistencies, that alone demonstrates that Green fails to provide written description support for a coupler that is pivotally coupled to the arm.

Wang is the movant and must demonstrate that it is entitled to the relief sought. Wang should have directed us to Green's specification, along with supporting evidence, that would demonstrate that one of ordinary skill in the art would interpret Green's specification as not providing written description support for the coupler limitation. Merely pointing out inconsistencies in Green's annotated set of claims does not, without more, demonstrate that Green's involved specification fails to provide written description support for the claimed invention.

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Wang additionally argues that Green fails to provide an enabling disclosure with respect to the releasable unclaimed feature. Wang's enablement argument is not persuasive. Wang's interpretation of Green's claims is incorrect, and furthermore, Wang directs us to no supporting evidence that demonstrates that

one of ordinary skill in the art would be faced with undue experimentation to practice Green's claims 118-122.

Attaching a surgical instrument to the first articulate arm

Green claim 123 recites:

A method for operating a surgical robotic system for performing a surgical procedure on a patient, the method comprising:

(1) providing a first articulate arm, a controller and an input device which receives input commands, the first articulate arm in electrical communication with the controller and the controller in electrical communication with the input device;

(2) cutting at least one incision into the patient;

(3) attaching a surgical instrument to the first articulate arm;

(4) inserting said surgical instrument into the patient through the at least one incision;

(5) generating input commands to move said surgical instrument in accordance with the procedure being performed wherein said robotic arm moves said surgical instrument in accordance with the input commands; and

(6) removing the surgical instrument from the patient.

Green claims 124-126 depend directly from Green claim 123.

Wang argues that Green's specification fails to provide written description support for "attaching a surgical instrument to the first articulate arm" as required in Green's claim 123. Once again, Wang looks to its specification to interpret the step of "attaching a surgical instrument to the "first articulate arm" and argues that the limitation requires releasably attaching the surgical instrument so that it can easily be exchanged for



another surgical instrument during a surgical procedure (Paper 20 at 22).

Green's claim 123 does not recite releasably attaching the surgical instrument during the surgical procedure. Green's claim 123 does not even require that the step of attaching a surgical instrument to the first articulate arm be done during the operation. The sequence of steps are not necessarily dependent on each other so that after the patient is cut, the surgical instrument be attached. The surgical instrument can be attached at any time, and is not limited to being attached during the operation. The language is broadly recited and imposes no particular order for attaching the surgical instrument to the articulate arm.

Obviously Green's disclosed surgical instrument is attached sometime. That it is "fixedly attached" as Wang argues, is of no moment. Green's claim 123 does not foreclose "fixedly" attaching the surgical instrument to the articulate arm.

Wang additionally argues that "for the reasons stated above in paragraph 21, Green does not disclose a robotic arm and therefore cannot support the limitation of attaching a surgical instrument to a robotic arm" (Paper 20 at 23). In its paragraph 21, Wang does not argue that Green does not describe a robotic arm. Green's argument in paragraph 21 relates to the coupler in Green claims 118-120, not that Green fails to describe a robotic arm. Still further, Green's claim 123 recites attaching the

surgical instrument to a first articulate arm. In the context of Green claims 123-126, Wang has failed to sufficiently demonstrate that Green lacks written description support for a "first articulate arm."

Wang argues that Green's specification fails to enable the step of attaching the surgical instrument to the articulate arm (Paper 20 at 24). However, Wang directs us to no supporting evidence that would demonstrate that undue experimentation would be required to practice Green's claims 123-126. Wang's enablement argument is conclusory.

For the reasons stated above, Wang preliminary motion 1 is denied.

Green preliminary motion 9

Green preliminary motion 9 is contingent upon the granting of Wang preliminary motion 1 to add claims 153-160 to its application. Since Wang preliminary motion 1 is denied, the contingency did not materialize. Accordingly, Green preliminary motion 9 is dismissed.

Green preliminary motion 10

Green preliminary motion 10 is contingent upon the granting of Wang preliminary motion 1 and the denial of Green preliminary motion 9, to substitute Green '536 application for its involved application. Wang preliminary motion 1 is denied. Green preliminary motion 9 is dismissed, thus the contingency did not materialize. Therefore, Green preliminary motion 10 is

dismissed.

Green preliminary motion 11

Green preliminary motion 11 is contingent upon the granting of Green preliminary motion 10 for benefit of earlier Green applications. Since Green preliminary motion 10 is dismissed, Green preliminary motion 11 is also dismissed.

**D. Further proceedings in this interference**

Wang, in its preliminary statement, has failed to allege a date prior to Green's January 21, 1992 effective filing date. The earliest date alleged by Wang, its date of conception, is April 21, 1992. Thus, it is not apparent that this interference should proceed to the priority phase of the interference. See 37 CFR § 1.640(d)(3).

Nonetheless, Wang will be given the opportunity to antedate the Jensen '378 reference with respect to Green preliminary motion 2 and Green preliminary motion 4. Furthermore, although Green preliminary motion 5 is contingent on the granting of Green preliminary motion 2, Wang will be given an opportunity to also antedate the Jensen '956 reference.

In doing so, Wang is not authorized to make new arguments with respect to the merits of its oppositions. For example, Wang is not entitled to make additional arguments as to why the Jensen reference(s) fail to describe or teach the claimed limitations of Wang's claims. Wang is only authorized to present evidence, along with an explanation of such evidence,

that would demonstrate that Jensen '378 ('956) is not prior art to Wang in the manner required under 37 CFR § 1.131.

Accordingly, it is

**ORDERED** that Wang may file evidence as specified under 37 CFR § 1.131 and a revised opposition to Green preliminary motions 2, 4, and 5;

**FURTHER ORDERED** that the revised opposition to Green preliminary motions 2, 4, and 5 be filed as a single paper to be no more than 20 pages;

**FURTHER ORDERED** that Wang's revised opposition be limited to a discussion of how Wang's Rule 131 declaration or affidavit overcome the Jensen '378 and/or '956 references;

**FURTHER ORDERED** that Wang's revised opposition be filed within 30 days of the date of this decision;

**FURTHER ORDERED** that party Green has 10 days from the date of filing of Wang's revised opposition to file a revised reply, limited to 15 pages and addressing only the points made in Wang's revised opposition for final hearing; and

**FURTHER ORDERED** that the parties are not authorized to file a request for reconsideration of this decision until a decision on Green preliminary motions 2, 4, and 5 is made; and



cc (via federal express)

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